[redacted] [redacted] 175928

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**From:** Mertz, Prema
**Sent:** Sunday, January 08, 2006 11:53 AM
**To:** STIC-Biotech/ChemLib
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Please search SEQ ID NO:6 with protein databases.

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Thanks.

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**********
Searcher:_____
Searcher Phone:_____
Date Searcher Picked up:_____
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**********
Type of Search
NA#_____ AA#:_____
S/L:_____ Oligomer:_____
Encode/Transl:_____
Structure #:_____Text:____
Inventor:_____ Litigation:___

**********
Vendors and cost where applicable
STN:_____
DIALOG:_____
QUESTEL/ORBIT:_____
LEXIS/NEXIS:_____
SEQUENCE SYSTEM:_____
WWW/Internet:_____
Other (Specify):_____

GenCore version 5.1.6


OM protein - protein search, using sw model

Run on: January 10, 2006, 22:51:05 ; Search time 160 Seconds
(without alignments)
326.307 Million cell updates/sec

Title: US-10-760-557-6
Perfect score: 416
Sequence: 1 TKTESSSRGPYHPSECCFTY.....VCTNPSDKWVQDYIKDMKEN 74

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 416 | 100.0 | 93 | 1 | CCL14_HUMAN | Q16627 homo sapien |
| 2 | 230 | 55.3 | 93 | 2 | Q6DUK4_PIG | Q6duk4 sus scrofa |
| 3 | 226 | 54.3 | 92 | 2 | Q711P4_PIG | Q711p4 sus scrofa |
| 4 | 221 | 53.1 | 92 | 2 | Q8HYQ3_MACMU | Q8hyq3 macaca mula |
| 5 | 220 | 52.9 | 92 | 2 | Q8HYQ2_MACMU | Q8hyq2 macaca mula |
| 6 | 219 | 52.6 | 92 | 1 | CCL3_HUMAN | P10147 h small ind |
| 7 | 218 | 52.4 | 92 | 1 | CCL4_MOUSE | P14097 mus musculu |
| 8 | 218 | 52.4 | 92 | 2 | Q8NHW4_HUMAN | Q8nhw4 homo sapien |
| 9 | 218 | 52.4 | 92 | 2 | Q5QNV9_MOUSE | Q5qnv9 mus musculu |
| 10 | 218 | 52.4 | 93 | 1 | CCL3L_HUMAN | P16619 homo sapien |
| 11 | 218 | 52.4 | 93 | 2 | Q53YA5_HUMAN | Q53ya5 homo sapien |
| 12 | 216 | 51.9 | 92 | 1 | CCL4_RABIT | P46632 oryctolagus |
| 13 | 214 | 51.4 | 90 | 2 | Q4VSK4_ANAPL | Q4vsk4 anas platyr |
| 14 | 214 | 51.4 | 92 | 2 | Q68AZ0_CANFA | Q68az0 canis famil |
| 15 | 213 | 51.2 | 92 | 1 | CCL3_PANTR | Q5i1z0 pan troglod |
| 16 | 213 | 51.2 | 92 | 1 | CCL4_RAT | P50230 rattus norv |
| 17 | 213 | 51.2 | 92 | 2 | Q6NSB0_HUMAN | Q6nsb0 homo sapien |
| 18 | 213 | 51.2 | 92 | 2 | Q91ZL0_SIGHI | Q91zl0 sigmodon hi |
| 19 | 212 | 51.0 | 92 | 1 | CCL4_HUMAN | P13236 h small ind |
| 20 | 212 | 51.0 | 92 | 2 | Q6FGI8_HUMAN | Q6fgi8 homo sapien |
| 21 | 211 | 50.7 | 93 | 1 | CCL3_BOVIN | Q8sqa6 bos taurus |
| 22 | 209 | 50.2 | 56 | 2 | Q8HYN4_MACMU | Q8hyn4 macaca mula |
| 23 | 209 | 50.2 | 90 | 2 | Q9PWA6_CHICK | Q9pwa6 gallus gall |
| 24 | 209 | 50.2 | 92 | 1 | CCL3_CANFA | Q68a92 canis famil |
| 25 | 207 | 49.8 | 80 | 2 | Q14745_HUMAN | Q14745 homo sapien |
| 26 | 206 | 49.5 | 90 | 1 | CCL4_CHICK | Q90826 gallus gall |
| 27 | 201.5 | 48.4 | 89 | 2 | Q9I8E0_CHICK | Q9i8e0 gallus gall |
| 28 | 201.5 | 48.4 | 89 | 2 | Q4KS30_CHICK | Q4ks30 gallus gall |
| 29 | 201 | 48.3 | 89 | 1 | CCL18_HUMAN | P55774 h small ind |
| 30 | 201 | 48.3 | 89 | 2 | Q53X71_HUMAN | Q53x71 homo sapien |
| 31 | 200.5 | 48.2 | 92 | 1 | CCL3_MOUSE | P10855 mus musculu |
| 32 | 200.5 | 48.2 | 92 | 2 | Q5QNW0_MOUSE | Q5qnw0 mus musculu |
| 33 | 195 | 46.9 | 85 | 2 | Q80XG5_PERMA | Q80xg5 peromyscus |
| 34 | 191.5 | 46.0 | 92 | 1 | CCL3_RAT | P50229 rattus norv |
| 35 | 187.5 | 45.1 | 87 | 2 | Q50EM7_HUMAN | Q50em7 homo sapien |
| 36 | 184 | 44.2 | 88 | 1 | CCL18_MACMU | Q8hyp8 macaca mula |
| 37 | 183.5 | 44.1 | 92 | 2 | Q91Z65_SIGHI | Q91z65 sigmodon hi |
| 38 | 176 | 42.3 | 49 | 2 | Q8HYN3_MACMU | Q8hyn3 macaca mula |
| 39 | 176 | 42.3 | 120 | 1 | CCL23_HUMAN | P55773 homo sapien |
| 40 | 176 | 42.3 | 120 | 2 | Q52LD4_HUMAN | Q52ld4 homo sapien |
| 41 | 174 | 41.8 | 101 | 2 | Q64IC2_ONCMY | Q64ic2 oncorhynchu |
| 42 | 172 | 41.3 | 91 | 1 | CCL5_HORSE | Q8mkd0 equus cabal |
| 43 | 172 | 41.3 | 91 | 1 | CCL5_HUMAN | P13501 homo sapien |
| 44 | 171.5 | 41.2 | 98 | 2 | Q5PYI1_MESAU | Q5pyi1 mesocricetu |
| 45 | 170.5 | 41.0 | 119 | 2 | Q8K477_RAT | Q8k477 rattus norv |

ALIGNMENTS

RESULT 1
CCL14_HUMAN
ID CCL14_HUMAN STANDARD; PRT; 93 AA.
AC Q16627; Q13954;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE Small inducible cytokine A14 precursor (CCL14) (Chemokine CC-1/CC-3)
DE (HCC-1/HCC-3) (HCC-1(1-74)) (NCC-2) [Contains: HCC-1(3-74); HCC-1(4-74); HCC-1(9-74)].
GN Name=CCL14; Synonyms=NCC2, SCYA14;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE, AND PROTEIN SEQUENCE OF 20-93.
RC TISSUE=Bone marrow;
RX MEDLINE=96136773; PubMed=8551235; DOI=10.1084/jem.183.1.295;
RA Schulz-Knappe P., Maegert H.-J., Dewald B., Meyer M., Cetin Y.,
RA Kubbies M., Tomeczkowski J., Kirchhoff K., Raida M., Adermann K.,
RA Kist A., Reinecke M., Sillard R., Pardigol A., Uguccioni M.,
RA Baggiolini M., Forssmann W.-G.;
RT "HCC-1, a novel chemokine from human plasma.";
RL J. Exp. Med. 183:295-299(1996).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Liver;
RX MEDLINE=98263352; PubMed=9600961; DOI=10.1073/pnas.95.11.6308;
RA Pardigol A., Forssmann U., Zucht H.-D., Loetscher P.,
RA Schulz-Knappe P., Baggiolini M., Forssmann W.-G., Maegert H.-J.;
RT "HCC-2, a human chemokine: gene structure, expression pattern, and
RT biological activity.";
RL Proc. Natl. Acad. Sci. U.S.A. 95:6308-6313(1998).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=99228475; PubMed=10213461; DOI=10.1089/107999099314153;
RA Nomiyama H., Fukuda S., Iio M., Tanase S., Miura R., Yoshie O.;
RT "Organization of the chemokine gene cluster on human chromosome
RT 17q11.2 containing the genes for CC chemokine MPIF-1, HCC-2, LEC, and
RT RANTES.";
RL J. Interferon Cytokine Res. 19:227-234(1999).
RN [4]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM HCC-1).
RC TISSUE=Pancreas, and Spleen;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

```
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [5]
RP   PROTEIN SEQUENCE OF 20-32, IDENTIFICATION OF HCC-1(3-74) AND
RP   HCC-1(4-74), MASS SPECTROMETRY, AND CARBOHYDRATE-LINKAGE SITE SER-26.
RX   PubMed=10978165; DOI=10.1021/bi992488q;
RA   Richter R., Schulz-Knappe P., John H., Forssmann W.-G.;
RT   "Posttranslationally processed forms of the human chemokine HCC-1.";
RL   Biochemistry 39:10799-10805(2000).
RN   [6]
RP   PROTEIN SEQUENCE OF 20-48, IDENTIFICATION OF HCC-1(9-74), MASS
RP   SPECTROMETRY, AND FUNCTION.
RX   PubMed=11085751; DOI=10.1084/jem.192.10.1501;
RA   Detheux M., Staendker L., Vakili J., Muench J., Forssmann U.,
RA   Adermann K., Poehlmann S., Vassart G., Kirchhoff F., Parmentier M.,
RA   Forssmann W.-G.;
RT   "Natural proteolytic processing of hemofiltrate CC chemokine 1
RT   generates a potent CC chemokine receptor (CCR)1 and CCR5 agonist with
RT   anti-HIV properties.";
RL   J. Exp. Med. 192:1051-1058(2000).
CC   -!- FUNCTION: Has weak activities on human monocytes and acts via
CC       receptors that also recognize MIP-1 alpha. It induced
CC       intracellular Ca(2+) changes and enzyme release, but no
CC       chemotaxis, at concentrations of 100-1,000 nM, and was inactive on
CC       T lymphocytes, neutrophils, and eosinophil leukocytes. Enhances
CC       the proliferation of CD34 myeloid progenitor cells. The processed
CC       form HCC-1(9-74) is a chemotactic factor that attracts monocytes
CC       eosinophils, and T-cells and is a ligand for CCR1, CCR3 and CCR5.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=HCC-1;
CC         IsoId=Q16627-1; Sequence=Displayed;
CC       Name=HCC-3;
CC         IsoId=Q16627-2; Sequence=VSP_001060;
CC   -!- TISSUE SPECIFICITY: Expressed constitutively in several normal
CC       tissues: spleen, liver, skeletal and heart muscle, gut, and bone
CC       marrow, present at high concentrations (1-80 nM) in plasma.
CC   -!- PTM: The N-terminal processed forms HCC-1(3-74), HCC-1(4-74) and
CC       HCC-1(9-74) are produced in small amounts by proteolytic cleavage
CC       after secretion in blood.
CC   -!- PTM: HCC-1(1-74), but not HCC-1(3-74) and HCC-1(4-74), is
CC       partially O-glycosylated; the O-linked glycan consists of one Gal-
CC       GalNAc disaccharide, further modified by two N-acetylneuraminic
CC       acids.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; Z49270; CAA89264.1; -; mRNA.
DR   EMBL; Z70292; CAA94307.1; -; mRNA.
DR   EMBL; Z70293; CAA94309.1; -; mRNA.
DR   EMBL; Z49269; CAA89263.1; -; Genomic_DNA.
DR   EMBL; AF088219; AAC63329.1; -; Genomic_DNA.
DR   EMBL; AF088219; AAF23982.1; -; Genomic_DNA.
DR   EMBL; BC038289; AAH38289.1; -; mRNA.
DR   EMBL; BC045165; AAH45165.1; -; mRNA.
DR   HSSP; P13236; 1HUM.
DR   HGNC; HGNC:10612; CCL14.
DR   MIM; 601392; -.
DR   GO; GO:0005615; C:extracellular space; TAS.
DR   GO; GO:0004871; F:signal transducer activity; TAS.
DR   GO; GO:0006874; P:calcium ion homeostasis; TAS.
DR   GO; GO:0008284; P:positive regulation of cell proliferation; TAS.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Alternative splicing; Cytokine; Direct protein sequencing;
KW   Glycoprotein; Signal.
FT   SIGNAL        1     19
FT   CHAIN        20     93       Small inducible cytokine A14.
FT   CHAIN        22     93       HCC-1(3-74).
FT   CHAIN        23     93       HCC-1(4-74).
FT   CHAIN        28     93       HCC-1(9-74).
FT   CARBOHYD     26     26       O-linked (GalNAc. . .).
FT   DISULFID     35     59       By similarity.
FT   DISULFID     36     75       By similarity.
FT   VARSPLIC     27     27       R -> QTGGKPKVVKIQLKLVG (in isoform HCC-
FT                                3).
FT                                /FTId=VSP_001060.
SQ   SEQUENCE   93 AA;  10678 MW;  DDDB899DC9148836 CRC64;

  Query Match             100.0%;  Score 416;  DB 1;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 7.4e-39;
  Matches   74;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         20 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 79

Qy         61 DKWVQDYIKDMKEN 74
              ||||||||||||||
Db         80 DKWVQDYIKDMKEN 93


RESULT 2
Q6DUK4_PIG
ID   Q6DUK4_PIG  PRELIMINARY;      PRT;    93 AA.
AC   Q6DUK4;
DT   25-OCT-2004 (TrEMBLrel. 28, Created)
DT   25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT   25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE   Macrophage inflamatory protein 1 alpha.
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC   Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Stirling C.M.A., Takamatsu H.;
RL   Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY643423; AAT65077.1; -; mRNA.
DR   GO; GO:0005576; C:extracellular region; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006935; P:chemotaxis; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ   SEQUENCE   93 AA;  10117 MW;  0B8D26CAEE28414C CRC64;

  Query Match             55.3%;  Score 230;  DB 2;  Length 93;
  Best Local Similarity   52.9%;  Pred. No. 5.7e-18;
  Matches   37;  Conservative   16;  Mismatches   17;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |   |: |||:||: ::||: : ||:||:|||||||::| ||:|  || || | ||
```

```
Db         23 SAPLGADTPTACCFSYTSRQLPRKFVADYFETSSQCSKPGVIFQTKKGREVCANPEDAWV 82

Qy         65 QDYIKDMKEN 74
              |:|| |:: |
Db         83 QEYISDLELN 92


RESULT 3
Q711P4_PIG
ID   Q711P4_PIG  PRELIMINARY;      PRT;    92 AA.
AC   Q711P4;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Putative MIP-1beta protein.
GN   Name=MIP-1beta;
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC   Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Ortuno E., Rodriguez-Carreno M.P., Alonso F., Dominguez J.,
RA   Ezquerra A.;
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ311717; CAC84398.1; -; mRNA.
DR   HSSP; P10147; 1B50.
DR   SMR; Q711P4; 24-92.
DR   GO; GO:0005576; C:extracellular region; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006935; P:chemotaxis; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ   SEQUENCE   92 AA;  10207 MW;  AB1E0AE5EA9F70E5 CRC64;

  Query Match             54.3%;  Score 226;  DB 2;  Length 92;
  Best Local Similarity   54.3%;  Pred. No. 1.6e-17;
  Matches   38;  Conservative   12;  Mismatches   20;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |   |: ||||||  |:||  : |||||:| ||:| :|| ||:|  || |||| ||
Db         23 SAPMGSDPPTSCCFTYTVRKLPRNFVTDYYETSSLCSQPAVVFQTKKGRQVCANPSDDWV 82

Qy         65 QDYIKDMKEN 74
              |:|: |:: |
Db         83 QEYMDDLELN 92


RESULT 4
Q8HYQ3_MACMU
ID   Q8HYQ3_MACMU PRELIMINARY;      PRT;    92 AA.
AC   Q8HYQ3;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Chemokine CCL3/MIP-1ALPHA.
OS   Macaca mulatta (Rhesus macaque).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC   Cercopithecidae; Cercopithecinae; Macaca.
OX   NCBI_TaxID=9544;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=22123042; PubMed=12126650; DOI=10.1006/cyto.2002.0875;
RA   Basu S., Schaefer T.M., Ghosh M., Fuller C.L., Reinhart T.A.;
RT   "Molecular cloning and sequencing of 25 different rhesus macaque
RT   chemokine cDNAs reveals evolutionary conservation among C, CC, CXC,
RT   and CX3C families of chemokines.";
RL   Cytokine 18:140-148(2002).
DR   EMBL; AF449266; AAN76070.1; -; mRNA.
DR   HSSP; P10147; 1B50.
DR   SMR; Q8HYQ3; 24-92.
DR   GO; GO:0005576; C:extracellular region; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006935; P:chemotaxis; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ   SEQUENCE   92 AA;  10120 MW;  021CAA371143D12A CRC64;

  Query Match             53.1%;  Score 221;  DB 2;  Length 92;
  Best Local Similarity   56.7%;  Pred. No. 5.8e-17;
  Matches   34;  Conservative   14;  Mismatches   12;  Indels    0;  Gaps    0;

Qy         13 PSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKDMK 72
              |: |||:| : :||:  | ||:||||||||||::|:||||  || :|| :||| |: |::
Db         30 PTSCCFSYISRQIPQNFIADYFETNSQCSKPGVIFLTKRGRQVCADPSKEWVQKYVSDLE 89


RESULT 5
Q8HYQ2_MACMU
ID   Q8HYQ2_MACMU PRELIMINARY;      PRT;    92 AA.
AC   Q8HYQ2;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Chemokine CCL4/MIP-1BETA.
OS   Macaca mulatta (Rhesus macaque).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC   Cercopithecidae; Cercopithecinae; Macaca.
OX   NCBI_TaxID=9544;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=22123042; PubMed=12126650; DOI=10.1006/cyto.2002.0875;
RA   Basu S., Schaefer T.M., Ghosh M., Fuller C.L., Reinhart T.A.;
RT   "Molecular cloning and sequencing of 25 different rhesus macaque
RT   chemokine cDNAs reveals evolutionary conservation among C, CC, CXC,
RT   and CX3C families of chemokines.";
RL   Cytokine 18:140-148(2002).
DR   EMBL; AF449267; AAN76071.1; -; mRNA.
DR   HSSP; P13236; 1HUM.
DR   SMR; Q8HYQ2; 24-92.
DR   GO; GO:0005576; C:extracellular region; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006935; P:chemotaxis; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ   SEQUENCE   92 AA;  10103 MW;  80B2C2071565F809 CRC64;

  Query Match             52.9%;  Score 220;  DB 2;  Length 92;
  Best Local Similarity   51.4%;  Pred. No. 7.5e-17;
  Matches   36;  Conservative   15;  Mismatches   19;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |   |: |||:||  |:||  ::|||||:| ||:| :|| ||||  || :||: ||
Db         23 SAPMGSDPPTSCCFSYTARKLPRNFVVDYYETSSLCSQPAVVFQTKRGKQVCADPSETWV 82

Qy         65 QDYIKDMKEN 74
              |:|: |:: |
Db         83 QEYVNDLELN 92


RESULT 6
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CCL3_HUMAN
ID   CCL3_HUMAN      STANDARD;      PRT;    92 AA.
AC   P10147;
DT   01-MAR-1989 (Rel. 10, Created)
DT   01-MAR-1989 (Rel. 10, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Small inducible cytokine A3 precursor (CCL3) (Macrophage inflammatory
DE   protein 1-alpha) (MIP-1-alpha) (Tonsillar lymphocyte LD78 alpha
DE   protein) (G0/G1 switch regulatory protein 19-1) (G0S19-1 protein)
DE   (SIS-beta) (PAT 464.1) [Contains: MIP-1-alpha(4-69) (LD78-alpha(4-
DE   69))].
GN   Name=CCL3; Synonyms=G0S19-1, MIP1A, SCYA3;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=86223879; PubMed=3086300;
RA   Obaru K., Fukuda M., Maeda S., Shimada K.;
RT   "A cDNA clone used to study mRNA inducible in human tonsillar
RT   lymphocytes by a tumor promoter.";
RL   J. Biochem. 99:885-894(1986).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=89140347; PubMed=2521882;
RA   Zipfel P.F., Balke J., Irving S.G., Kelly K., Siebenlist U.;
RT   "Mitogenic activation of human T cells induces two closely related
RT   genes which share structural similarities with a new family of
RT   secreted factors.";
RL   J. Immunol. 142:1582-1590(1989).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=91103879; PubMed=2271120;
RA   Blum S., Forsdyke R.E., Forsdyke D.R.;
RT   "Three human homologs of a murine gene encoding an inhibitor of stem
RT   cell proliferation.";
RL   DNA Cell Biol. 9:589-602(1990).
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=90287155; PubMed=1694014;
RA   Nakao M., Nomiyama H., Shimada K.;
RT   "Structures of human genes coding for cytokine LD78 and their
RT   expression.";
RL   Mol. Cell. Biol. 10:3646-3658(1990).
RN   [5]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC   TISSUE=Blood;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [6]
RP   NUCLEOTIDE SEQUENCE OF 23-92.
RA   Jang J.S., Kim B.E.;
RL   Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases.
RN   [7]
RP   PROTEIN SEQUENCE OF 24-92, AND MUTAGENESIS OF ASP-49.
RX   MEDLINE=96127782; PubMed=8541527;
RA   Hunter M.G., Bawden L., Brotherton D., Craig S., Cribbes S.,
RA   Czaplewski L.G., Dexter T.M., Drummond A.H., Gearing A.H.,
RA   Heyworth C.M., Lord B.I., Mccourt M., Varley P.G., Wood L.M.,
RA   Edwards R.M., Lewis P.J.;
RT   "BB-10010: an active variant of human macrophage inflammatory protein-
RT   1 alpha with improved pharmaceutical properties.";
RL   Blood 86:4400-4408(1995).
RN   [8]
RP   PROTEIN SEQUENCE OF 27-40 AND 71-83, AND FUNCTION.
RX   MEDLINE=96106406; PubMed=8525373;
RA   Cocchi F., DeVico A.L., Garzino-Demo A., Arya S.K., Gallo R.C.,
RA   Lusso P.;
RT   "Identification of RANTES, MIP-1 alpha, and MIP-1 beta as the major
RT   HIV-suppressive factors produced by CD8+ T cells.";
RL   Science 270:1811-1815(1995).
RN   [9]
RP   PROTEIN SEQUENCE OF 27-51, AND IDENTIFICATION OF LD78-ALPHA(4-69).
RX   MEDLINE=95251928; PubMed=7537510;
RA   Bertini R., Luini W., Sozzani S., Bottazzi B., Ruggiero P.,
RA   Boraschi D., Saggioro D., Chieco-Bianchi L., Proost P., van Damme J.,
RA   Mantovani A.;
RT   "Identification of MIP-1 alpha/LD78 as a monocyte chemoattractant
RT   released by the HTLV-I-transformed cell line MT4.";
RL   AIDS Res. Hum. Retroviruses 11:155-160(1995).
RN   [10]
RP   SUBUNIT, AND INTERACTION WITH MIP-1-BETA(3-69).
RX   MEDLINE=22191307; PubMed=12070155; DOI=10.1074/jbc.M203077200;
RA   Guan E., Wang J., Roderiquez G., Norcross M.A.;
RT   "Natural truncation of the chemokine MIP-1beta /CCL4 affects receptor
RT   specificity but not anti-HIV-1 activity.";
RL   J. Biol. Chem. 277:32348-32352(2002).
RN   [11]
RP   REVIEW.
RX   MEDLINE=22288990; PubMed=12401480; DOI=10.1016/S1359-6101(02)00045-X;
RA   Menten P., Wuyts A., Van Damme J.;
RT   "Macrophage inflammatory protein-1.";
RL   Cytokine Growth Factor Rev. 13:455-481(2002).
RN   [12]
RP   STRUCTURE BY NMR OF 24-92, AND MUTAGENESIS OF ASP-49 AND GLU-89.
RX   MEDLINE=99278370; PubMed=10347159; DOI=10.1074/jbc.274.23.16077;
RA   Czaplewski L.G., McKeating J., Craven C.J., Higgins L.D., Appay V.,
RA   Brown A., Dudgeon T., Howard L.A., Meyers T., Owen J., Palan S.R.,
RA   Tan P., Wilson G., Woods N.R., Heyworth C.M., Lord B.I.,
RA   Brotherton D., Christison R., Craig S., Cribbes S., Edwards R.M.,
RA   Evans S.J., Gilbert R., Morgan P., Eliot Randle E., Schofield N.,
RA   Varley P.G., Fisher J., Jonathan P., Waltho J.P., Hunter M.G.;
RT   "Identification of amino acid residues critical for aggregation of
RT   human CC chemokines macrophage inflammatory protein (MIP)-1alpha, MIP-
RT   1beta, and RANTES. Characterization of active disaggregated chemokine
RT   variants.";
RL   J. Biol. Chem. 274:16077-16084(1999).
CC   -!- FUNCTION: Monokine with inflammatory and chemokinetic properties.
CC       Binds to CCR1, CCR4 and CCR5. One of the major HIV-suppressive
CC       factors produced by CD8+ T cells. Recombinant MIP-1-alpha induces
CC       a dose-dependent inhibition of different strains of HIV-1, HIV-2,
CC       and simian immunodeficiency virus (SIV).
CC   -!- SUBUNIT: Self-associates. Also heterodimer of MIP-1-alpha(4-69)
CC       and MIP-1-beta(3-69).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- INDUCTION: By TPA or PHA (TPA = 12-o-tetradecanoyl phorbol-13
CC       acetate (tumor promoter); PHA = phytohemagglutinin (T-cell
CC       mitogen)).
CC   -!- PTM: N-terminal processed form LD78-alpha(4-69) is produced by
CC       proteolytic cleavage after secretion from HTLV1-transformed T-
CC       cells.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   the European Bioinformatics Institute.  There are no  restrictions on  its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   --------------------------------------------------------------------------
DR   EMBL; D00044; BAA00029.1; -; mRNA.
DR   EMBL; M23452; AAA36316.1; -; mRNA.
DR   EMBL; M25315; AAA57255.1; -; mRNA.
DR   EMBL; X03754; CAA27388.1; -; mRNA.
DR   EMBL; X04018; CAA27643.1; ALT_SEQ; Genomic_DNA.
DR   EMBL; M23178; AAA35858.1; -; Genomic_DNA.
DR   EMBL; D90144; BAA14172.1; -; Genomic_DNA.
DR   EMBL; BC071834; AAH71834.1; -; mRNA.
DR   EMBL; AF043339; AAC03539.1; -; mRNA.
DR   PIR; A35673; A30574.
DR   PDB; 1B50; NMR; A/B=24-92.
DR   PDB; 1B53; NMR; A/B=24-92.
DR   Ensembl; ENSG00000006075; Homo sapiens.
DR   HGNC; HGNC:10627; CCL3.
DR   MIM; 182283; -.
DR   GO; GO:0005625; C:soluble fraction; TAS.
DR   GO; GO:0008009; F:chemokine activity; TAS.
DR   GO; GO:0004871; F:signal transducer activity; TAS.
DR   GO; GO:0019735; P:antimicrobial humoral response (sensu Verte. . .; TAS.
DR   GO; GO:0006874; P:calcium ion homeostasis; TAS.
DR   GO; GO:0006928; P:cell motility; TAS.
DR   GO; GO:0007267; P:cell-cell signaling; TAS.
DR   GO; GO:0006935; P:chemotaxis; TAS.
DR   GO; GO:0007010; P:cytoskeleton organization and biogenesis; TAS.
DR   GO; GO:0006887; P:exocytosis; TAS.
DR   GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; TAS.
DR   GO; GO:0006954; P:inflammatory response; TAS.
DR   GO; GO:0045069; P:regulation of viral genome replication; TAS.
DR   GO; GO:0007165; P:signal transduction; TAS.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   3D-structure; Chemotaxis; Cytokine; Direct protein sequencing;
KW   Inflammatory response; Sensory transduction; Signal.
FT   SIGNAL        1     23
FT   CHAIN         24    92       Small inducible cytokine A3.
FT   CHAIN         27    92       MIP-1-alpha(4-69).
FT   DISULFID      33    57       By similarity.
FT   DISULFID      34    73       By similarity.
FT   MUTAGEN       49    49       D->A: Reduces self-association; in BB-
FT                                10010: Improved pharmaceutical
FT                                properties.
FT   MUTAGEN       89    89       E->A: Reduces self-association.
FT   TURN          44    46
FT   STRAND        49    51
FT   TURN          55    58
FT   STRAND        63    65
FT   TURN          67    68
FT   TURN          76    77
FT   HELIX         79    84

  Query Match             52.6%;  Score 219;  DB 1;  Length 92;
  Best Local Similarity   51.5%;  Pred. No. 9.8e-17;
  Matches   35;  Conservative   17;  Mismatches   16;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:|     |: |||:||: :||:  | ||:||:|||||||::|:|||   || :||::||
Db         22 SASLAADTPTACCFSYTSRQIPQNFIADYFETSSQCSKPGVIFLTKRSRQVCADPSEEWV 81

Qy         65 QDYIKDMK 72
                | |: |::
Db         82 QKYVSDLE 89


RESULT 7
CCL4_MOUSE
ID   CCL4_MOUSE     STANDARD;      PRT;    92 AA.
AC   P14097;
DT   01-JAN-1990 (Rel. 13, Created)
DT   01-FEB-1996 (Rel. 33, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Small inducible cytokine A4 precursor (CCL4) (Macrophage inflammatory
DE   protein 1-beta) (MIP-1-beta) (H400 protein) (SIS-gamma) (ACT2).
GN   Name=Ccl4; Synonyms=Mip1b, Scya4;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=89067830; PubMed=3058856; DOI=10.1084/jem.168.6.2251;
RA   Sherry B., Tekamp-Olson P., Gallegos C., Bauer D., Davatelis G.,
RA   Wolpe S.D., Masiarz F., Coit D., Cerami A.;
RT   "Resolution of the two components of macrophage inflammatory protein
RT   1, and cloning and characterization of one of those components,
RT   macrophage inflammatory protein 1 beta.";
RL   J. Exp. Med. 168:2251-2259(1988).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=89093958; PubMed=2521353;
RA   Brown K.D., Zurawski S.M., Mosmann T.R., Zurawski G.;
RT   "A family of small inducible proteins secreted by leukocytes are
RT   members of a new superfamily that includes leukocyte and fibroblast-
RT   derived inflammatory agents, growth factors, and indicators of various
RT   activation processes.";
RL   J. Immunol. 142:679-687(1989).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=DBA/2J; TISSUE=Liver;
RA   Daubersies P., Lepretre F., Bailleul B., Grove M., Pragnell I.,
RA   Plumb M.A.;
RL   Submitted (OCT-1991) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=B10.S/J, and SJL/J; TISSUE=Spleen;
RX   MEDLINE=99370037; PubMed=10438970;
RA   Teuscher C., Butterfield R.J., Ma R.Z., Zachary J.F., Doerge R.W.,
RA   Blankenhorn E.P.;
RT   "Sequence polymorphisms in the chemokines Scya1 (TCA-3), Scya2
RT   (monocyte chemoattractant protein (MCP)-1), and Scya12 (MCP-5) are
RT   candidates for eae7, a locus controlling susceptibility to monophasic
RT   remitting/nonrelapsing experimental allergic encephalomyelitis.";
RL   J. Immunol. 163:2262-2266(1999).
CC   -!- FUNCTION: Monokine with inflammatory and chemokinetic properties.
CC   -!- SUBUNIT: Homodimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   --------------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between  the Swiss Institute of Bioinformatics  and the  EMBL outstation -
CC   the European Bioinformatics Institute.  There are no  restrictions on  its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   --------------------------------------------------------------------------
DR   EMBL; M23503; AAA40148.1; -; mRNA.
DR   EMBL; M35590; AAA39708.1; -; mRNA.
DR   EMBL; X62502; CAA44364.1; -; Genomic_DNA.
DR   EMBL; AF128218; AAF22559.1; -; mRNA.
DR   EMBL; AF128219; AAF22560.1; -; mRNA.
DR   PIR; C30552; C30552.
DR   HSSP; P13236; 1HUM.
DR   SMR; P14097; 24-92.
DR   Ensembl; ENSMUSG00000018930; Mus musculus.
DR   MGI; MGI:98261; Ccl4.
DR   GO; GO:0005615; C:extracellular space; TAS.
DR   GO; GO:0005515; F:protein binding; IPI.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   InterPro; IPR008105; Lymphotactin.
DR   Pfam; PF00048; IL8; 1.
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DR   PRINTS; PR01731; LYMPHOTACTIN.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Inflammatory response; Sensory transduction;
KW   Signal.
FT   SIGNAL        1     23
FT   CHAIN        24     92       Small inducible cytokine A4.
FT   DISULFID     34     58       By similarity.
FT   DISULFID     35     74       By similarity.
SQ   SEQUENCE   92 AA;  10168 MW;  8853FD58FDE61BAC CRC64;

  Query Match             52.4%;  Score 218;  DB 1;  Length 92;
  Best Local Similarity   50.0%;  Pred. No. 1.3e-16;
  Matches   35;  Conservative   16;  Mismatches   19;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |    |: |||:||: :: |  :|||||:| |||| :||:||||  :| |||: ||
Db         23 SAPMGSDPPTSCCFSYTSRQLHRSFVMDYYETSSLCSKPAVVFLTKRGRQICANPSEPWV 82

Qy         65 QDYIKDMKEN 74
              :|: |:: |
Db       , 83 TEYMSDLELN 92


RESULT 8
Q8NHW4_HUMAN
ID   Q8NHW4_HUMAN PRELIMINARY;      PRT;    92 AA.
AC   Q8NHW4;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Macrophage inflammatory protein-1b2 (CC chemokine ligand 4L1).
GN   Name=CCL4L1; Synonyms=CCL4L;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Nibbs R.J., Barcellos L.F., Townson J.R.;
RL   Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RX   PubMed=15843566;
RA   Colobran R., Adreani P., Ashhab Y., Llano A., Este J.A., Dominguez O.,
RA   Pujol-Borrell R., Juan M.;
RT   "Multiple Products Derived from Two CCL4 Loci: High Incidence of a New
RT   Polymorphism in HIV+ Patients.";
RL   J. Immunol. 174:5655-5664(2005).
DR   EMBL; AY079147; AAL87008.1; -; Genomic_DNA.
DR   EMBL; AY766460; AAX07294.1; -; Genomic_DNA.
DR   PIR; C60407; C60407.
DR   HSSP; P13236; 1HUM.
DR   SMR; Q8NHW4; 24-92.
DR   GO; GO:0005576; C:extracellular region; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006935; P:chemotaxis; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   InterPro; IPR008105; Lymphotactin.
DR   Pfam; PF00048; IL8; 1.
DR   PRINTS; PR01731; LYMPHOTACTIN.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ   SEQUENCE   92 AA;  10166 MW;  4C8D01E926CDE882 CRC64;

  Query Match             52.4%;  Score 218;  DB 2;  Length 92;
  Best Local Similarity   51.4%;  Pred. No. 1.3e-16;
  Matches   36;  Conservative   15;  Mismatches   19;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |    |: |||:||  |:||  ::|||||:| ||:| :|| ||||  || :||: ||
Db         23 SAPMGSDPPTACCFSYTARKLPRNFVVDYYETSSLCSQPAVVFQTKRGKQVCADPSESWV 82

Qy         65 QDYIKDMKEN 74
              |:|: |:: |
Db         83 QEYVYDLELN 92


RESULT 9
Q5QNV9_MOUSE
ID   Q5QNV9_MOUSE PRELIMINARY;      PRT;    92 AA.
AC   Q5QNV9;
DT   01-FEB-2005 (TrEMBLrel. 29, Created)
DT   01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
DT   01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
DE   Chemokine (C-C motif) ligand 4.
GN   Name=Ccl4; Synonyms=ccl4; ORFNames=RP23-320E6.8-001;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Johnson C.;
RL   Submitted (FEB-2005) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AL596122; CAI25137.1; -; Genomic_DNA.
DR   MGI; MGI:98261; Ccl4.
DR   GO; GO:0005576; C:extracellular region; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
SQ   SEQUENCE   92 AA;  10168 MW;  8853FD58FDE61BAC CRC64;

  Query Match             52.4%;  Score 218;  DB 2;  Length 92;
  Best Local Similarity   50.0%;  Pred. No. 1.3e-16;
  Matches   35;  Conservative   16;  Mismatches   19;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |    |: |||:||: :: |  :|||||:| |||| :||:||||  :| |||: ||
Db         23 SAPMGSDPPTSCCFSYTSRQLHRSFVMDYYETSSLCSKPAVVFLTKRGRQICANPSEPWV 82

Qy         65 QDYIKDMKEN 74
              :|: |:: |
Db         83 TEYMSDLELN 92


RESULT 10
CCL3L_HUMAN
ID   CCL3L_HUMAN    STANDARD;      PRT;    93 AA.
AC   P16619; Q96I68;
DT   01-AUG-1990 (Rel. 15, Created)
DT   01-AUG-1990 (Rel. 15, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Small inducible cytokine A3-like 1 precursor (Tonsillar lymphocyte
DE   LD78 beta protein) (LD78-beta(1-70)) (G0/G1 switch regulatory protein
DE   19-2) (G0S19-2 protein) (PAT 464.2) [Contains: LD78-beta(3-70); LD78-
DE   beta(5-70)].
GN   Name=CCL3L1; Synonyms=G0S19-2, SCYA3L1;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Blood;
RX   MEDLINE=90287702; PubMed=1972563;
RA   Irving S.G., Zipfel P.F., Balke J., McBride O.W., Morton C.C.,
RA   Burd P.R., Siebenlist U., Kelly K.;
RT   "Two inflammatory mediator cytokine genes are closely linked and
RT   variably amplified on chromosome 17q.";
RL   Nucleic Acids Res. 18:3261-3270(1990).
RN   [2]
```

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RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=91103879; PubMed=2271120;
RA   Blum S., Forsdyke R.E., Forsdyke D.R.;
RT   "Three human homologs of a murine gene encoding an inhibitor of stem
RT   cell proliferation.";
RL   DNA Cell Biol. 9:589-602(1990).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=90287155; PubMed=1694014;
RA   Nakao M., Nomiyama H., Shimada K.;
RT   "Structures of human genes coding for cytokine LD78 and their
RT   expression.";
RL   Mol. Cell. Biol. 10:3646-3658(1990).
RN   [4]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC   TISSUE=B-cell, Pancreas, and Spleen;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [5]
RP   PROTEIN SEQUENCE OF 24-38.
RX   PubMed=15340161; DOI=10.1110/ps.04682504;
RA   Zhang Z., Henzel W.J.;
RT   "Signal peptide prediction based on analysis of experimentally
RT   verified cleavage sites.";
RL   Protein Sci. 13:2819-2824(2004).
RN   [6]
RP   IDENTIFICATION OF LD78-BETA(3-70) AND LD78-BETA(5-70), N-TERMINAL
RP   PROCESSING, AND FUNCTION.
RX   MEDLINE=20417739; PubMed=10961862;
RA   Proost P., Menten P., Struyf S., Schutyser E., De Meester I.,
RA   Van Damme J.;
RT   "Cleavage by CD26/dipeptidyl peptidase IV converts the chemokine
RT   LD78beta into a most efficient monocyte attractant and CCR1 agonist.";
RL   Blood 96:1674-1680(2000).
CC   -!- FUNCTION: Chemotactic for monocytes. Is a ligand for CCR5.
CC       Recombinant small inducible cytokine B10 induces a dose-dependent
CC       inhibition of macrophage tropic HIV-1 strains. The processed form
CC       LD78-beta(3-70) shows a 20-fold to 30-fold higher chemotactic
CC       activity and is also a ligand for CCR1.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- PTM: The N-terminal processed forms LD78-beta(3-70) and LD78-
CC       beta(5-70) are produced by proteolytic cleavage after secretion
CC       from peripheral blood monocytes. The cleavage to yield LD78-
CC       beta(3-70) is probably achieved by DPP4.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; X52149; CAA36397.1; -; mRNA.
DR   EMBL; M24110; AAA35859.1; -; Genomic_DNA.
DR   EMBL; D90145; BAA14173.1; -; Genomic_DNA.
DR   EMBL; BC007783; AAH07783.1; -; mRNA.
DR   EMBL; BC027888; AAH27888.1; -; mRNA.
DR   PIR; B35673; B35673.
DR   HSSP; P10147; 1B50.
DR   SMR; P16619; 26-93.
DR   HGNC; HGNC:10628; CCL3L1.
DR   H-InvDB; HIX0020418; -.
DR   H-InvDB; HIX0023281; -.
DR   MIM; 601395; -.
DR   GO; GO:0005576; C:extracellular region; NAS.
DR   GO; GO:0008009; F:chemokine activity; NAS.
DR   GO; GO:0006935; P:chemotaxis; NAS.
DR   GO; GO:0006954; P:inflammatory response; TAS.
DR   GO; GO:0008285; P:negative regulation of cell proliferation; TAS.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Direct protein sequencing; Sensory transduction;
KW   Signal.
FT   SIGNAL       1     23
FT   CHAIN       24     93       Small inducible cytokine A3-like 1.
FT   CHAIN       26     93       LD78-beta(3-70).
FT   CHAIN       28     93       LD78-beta(5-70).
FT   SITE        25     26       Cleavage (by DPP4) (Probable).
FT   DISULFID    34     58       By similarity.
FT   DISULFID    35     74       By similarity.
FT   CONFLICT    91     91       L -> P (in Ref. 4; AAH07783).
SQ   SEQUENCE   93 AA;  10161 MW;  A7A79E774006D61E CRC64;

  Query Match             52.4%;  Score 218;  DB 1;  Length 93;
  Best Local Similarity   55.0%;  Pred. No. 1.3e-16;
  Matches   33;  Conservative   16;  Mismatches   11;  Indels    0;  Gaps    0;

Qy         13 PSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKDMK 72
              |: |||:||: :||:  | ||:||:|||||| ::|:|||| || :||::||| |: |::
Db         31 PTACCFSYTSRQIPQNFIADYFETSSQCSKPSVIFLTKRGRQVCADPSEEWVQKYVSDLE 90


RESULT 11
Q53YA5_HUMAN
ID   Q53YA5_HUMAN PRELIMINARY;      PRT;    93 AA.
AC   Q53YA5;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Chemokine (C-C motif) ligand 3.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Kalnine N., Chen X., Rolfs A., Halleck A., Hines L., Eisenstein S.,
RA   Koundinya M., Raphael J., Moreira D., Kelley T., LaBaer J., Lin Y.,
RA   Phelan M., Farmer A.;
RT   "Cloning of human full-length CDSs in BD Creator(TM) System Donor
RT   vector.";
RL   Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BT006783; AAP35429.1; -; mRNA.
SQ   SEQUENCE   93 AA;  10144 MW;  A7A78E374006D61E CRC64;

  Query Match             52.4%;  Score 218;  DB 2;  Length 93;
  Best Local Similarity   55.0%;  Pred. No. 1.3e-16;
  Matches   33;  Conservative   16;  Mismatches   11;  Indels    0;  Gaps    0;

Qy         13 PSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKDMK 72
              |: |||:||: :||:  | ||:||:|||||| ::|:|||| || :||::||| |: |::
Db         31 PTACCFSYTSRQIPQNFIADYFETSSQCSKPSVIFLTKRGRQVCADPSEEWVQKYVSDLE 90
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RESULT 12
CCL4_RABIT
ID   CCL4_RABIT     STANDARD;      PRT;    92 AA.
AC   P46632;
DT   01-NOV-1995 (Rel. 32, Created)
DT   01-NOV-1995 (Rel. 32, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Small inducible cytokine A4 precursor (CCL4) (Macrophage inflammatory
DE   protein 1-beta) (MIP-1-beta) (Immune activation protein 2) (ACT-2).
GN   Name=CCL4; Synonyms=SCYA4;
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC   Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=New Zealand white;
RX   MEDLINE=94198229; PubMed=8148323;
RA   Mori S., Goto K., Goto F., Mutakami K., Ohkawara S., Yoshinaga M.;
RT   "Dynamic changes in mRNA expression of neutrophils during the course
RT   of acute inflammation in rabbits.";
RL   Int. Immunol. 6:149-156(1994).
CC   -!- FUNCTION: Monokine with inflammatory and chemokinetic properties
CC       (By similarity).
CC   -!- SUBUNIT: Homodimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; D17402; BAA04226.1; -; mRNA.
DR   PIR; I46730; I46730.
DR   HSSP; P13236; 1HUM.
DR   SMR; P46632; 24-92.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Inflammatory response; Sensory transduction;
KW   Signal.
FT   SIGNAL        1     23       By similarity.
FT   CHAIN        24     92       Small inducible cytokine A4.
FT   DISULFID     34     58       By similarity.
FT   DISULFID     35     74       By similarity.
SQ   SEQUENCE   92 AA;  10066 MW;  ECBA8818D42A735C CRC64;

  Query Match             51.9%;  Score 216;  DB 1;  Length 92;
  Best Local Similarity   50.0%;  Pred. No. 2.1e-16;
  Matches   35;  Conservative   15;  Mismatches   20;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |   |: |||:||  |:||  ::||:|| | ||:| :|| ||:|  || |||: ||
Db         23 SAPMGSDPPTACCFSYTLRKLPRHFVIDYFETTSLCSQPAVVFQTKKGRQVCANPSESWV 82

Qy         65 QDYIKDMKEN 74
                |:|: |:: |
Db         83 QEYVDDLELN 92


RESULT 13
Q4VSK4_ANAPL
ID   Q4VSK4_ANAPL PRELIMINARY;      PRT;    90 AA.
AC   Q4VSK4;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   MIP-beta-like CC chemokine.
OS   Anas platyrhynchos (Domestic duck).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Anseriformes; Anatidae; Anas.
OX   NCBI_TaxID=8839;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Mitogen stimulated spleen;
RX   PubMed=15841394;
RA   Sreekumar E., Premraj A., Arathy D.S., Rasool T.J.;
RT   "Identification, sequence characterization, and analysis of expression
RT   profiles of three novel CC chemokines from domestic duck (Anas
RT   platyrhynchos).";
RL   Immunogenetics 57:364-373(2005).
DR   EMBL; AY641437; AAV52797.1; -; mRNA.
SQ   SEQUENCE   90 AA;  9997 MW;  5B6FF22356423930 CRC64;

  Query Match             51.4%;  Score 214;  DB 2;  Length 90;
  Best Local Similarity   47.9%;  Pred. No. 3.5e-16;
  Matches   35;  Conservative   14;  Mismatches   24;  Indels    0;  Gaps    0;

Qy          2 KTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSD 61
              :| ::  |   |: |||||    :||  : |||||| |||||:||||::|  || ||
Db         18 QTSAAPIGSDPPTSCCFTYVQRALPRSFVTDYYETNSLCSKPGVVFITRKGREVCANPEH 77

Qy         62 KWVQDYIKDMKEN 74
                ||: |: ::: |
Db         78 DWVKKYVTELELN 90


RESULT 14
Q68AZ0_CANFA
ID   Q68AZ0_CANFA PRELIMINARY;      PRT;    92 AA.
AC   Q68AZ0;
DT   25-OCT-2004 (TrEMBLrel. 28, Created)
DT   25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT   01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
DE   CC chemokine ligand 4.
GN   Name=CCL4;
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC   Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Tsukui T., Sakaguchi M., Maeda S., Koyanagi M., Masuda K., Ohno K.,
RA   Tsujimoto H., Iwabuchi S.;
RT   "Expression analysis of chemokine gene in canine atopic dermatitis.";
RL   Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RA   Tsukui T., Maeda S., Koyanagi M., Hashimoto R., Masuda K., Ohno K.,
RA   Sakaguchi M., Tsujimoto H., Iwabuchi S.;
RT   "Expression analysis of CCL4 gene in canine atopic dermatitis.";
RL   Submitted (JUL-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AB163435; BAD37148.1; -; mRNA.
DR   EMBL; AB183194; BAD83842.1; -; mRNA.
DR   SMR; Q68AZ0; 24-92.
DR   Ensembl; ENSCAFG00000018164; Canis familiaris.
DR   GO; GO:0005576; C:extracellular region; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ   SEQUENCE   92 AA;  10197 MW;  7628FBC425BCED9C CRC64;

  Query Match             51.4%;  Score 214;  DB 2;  Length 92;
  Best Local Similarity   51.4%;  Pred. No. 3.6e-16;
  Matches   36;  Conservative   14;  Mismatches   20;  Indels    0;  Gaps    0;
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Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |    |: |||:||  ||||  : ||:||:| ||:| :|| |:||  || |||: ||
Db         23 SAPMGSDPPTACCFSYTLRKIPRNFVADYFETSSLCSQPAVVFQTRRGRQVCANPSEPWV 82

Qy         65 QDYIKDMKEN 74
              |:|: |:: |
Db         83 QEYMDDLELN 92


RESULT 15
CCL3_PANTR
ID   CCL3_PANTR     STANDARD;      PRT;    92 AA.
AC   Q5I1Z0;
DT   10-MAY-2005 (Rel. 47, Created)
DT   10-MAY-2005 (Rel. 47, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Small inducible cytokine A3 precursor (CCL3) (Macrophage inflammatory
DE   protein 1-alpha) (MIP-1-alpha).
GN   Name=CCL3;
OS   Pan troglodytes (Chimpanzee).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Pan.
OX   NCBI_TaxID=9598;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   PubMed=15637236; DOI=10.1126/science.1101160;
RA   Gonzalez E., Kulkarni H., Bolivar H., Mangano A., Sanchez R.,
RA   Catano G., Nibbs R.J., Freedman B.I., Quinones M.P., Bamshad M.J.,
RA   Murthy K.K., Rovin B.H., Bradley W., Clark R.A., Anderson S.A.,
RA   O'connell R.J., Agan B.K., Ahuja S.S., Bologna R., Sen L., Dolan M.J.,
RA   Ahuja S.K.;
RT   "The influence of CCL3L1 gene-containing segmental duplications on
RT   HIV-1/AIDS susceptibility.";
RL   Science 307:1434-1440(2005).
CC   -!- FUNCTION: Monokine with inflammatory and chemokinetic properties.
CC       Binds to CCR1, CCR4 and CCR5 (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted (By similarity).
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AY864054; AAW57434.1; -; mRNA.
DR   SMR; Q5I1Z0; 24-92.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Inflammatory response; Sensory transduction;
KW   Signal.
FT   SIGNAL       1     23       By similarity.
FT   CHAIN       24     92       Small inducible cytokine A3.
FT   DISULFID    33     57       By similarity.
FT   DISULFID    34     73       By similarity.
SQ   SEQUENCE   92 AA;  10098 MW;  3DF0B8D5D6777821 CRC64;

  Query Match             51.2%;  Score 213;  DB 1;  Length 92;
  Best Local Similarity   50.0%;  Pred. No. 4.6e-16;
  Matches   34;  Conservative   17;  Mismatches   17;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:|     |: |||:| : :||:  | ||:||:|||||| ::|:|||| || :||::||
Db         22 SASLAADTPTACCFSYISRQIPQNFIADYFETSSQCSKPSVIFLTKRGRQVCADPSEEWV 81

Qy         65 QDYIKDMK 72
              | |: |::
Db         82 QKYVSDLE 89
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Search completed: January 10, 2006, 22:59:19
Job time : 161 secs

GenCore version 5.1.6


OM protein - protein search, using sw model

Run on: January 10, 2006, 22:54:31 ; Search time 46 Seconds
(without alignments)
133.000 Million cell updates/sec

Title: US-10-760-557-6
Perfect score: 416
Sequence: 1 TKTESSSRGPYHPSECCFTY.....VCTNPSDKWVQDYIKDMKEN 74

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/H_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 416 | 100.0 | 93 | 1 | US-08-173-209A-2 | Sequence 2, Appli |
| 2 | 416 | 100.0 | 93 | 1 | US-08-347-492B-6 | Sequence 6, Appli |
| 3 | 416 | 100.0 | 93 | 1 | US-08-798-143-6 | Sequence 6, Appli |
| 4 | 416 | 100.0 | 93 | 2 | US-08-722-719-2 | Sequence 2, Appli |
| 5 | 416 | 100.0 | 93 | 2 | US-09-180-077-7 | Sequence 7, Appli |
| 6 | 416 | 100.0 | 93 | 2 | US-09-334-951-2 | Sequence 2, Appli |
| 7 | 416 | 100.0 | 93 | 2 | US-09-334-923A-2 | Sequence 2, Appli |
| 8 | 416 | 100.0 | 93 | 2 | US-09-334-954A-2 | Sequence 2, Appli |
| 9 | 416 | 100.0 | 93 | 2 | US-09-834-795A-30 | Sequence 30, Appl |
| 10 | 416 | 100.0 | 93 | 2 | US-09-571-013-2 | Sequence 2, Appli |
| 11 | 416 | 100.0 | 93 | 4 | PCT-US95-15484-6 | Sequence 6, Appli |
| 12 | 405 | 97.4 | 72 | 2 | US-09-567-225-1 | Sequence 1, Appli |
| 13 | 394 | 94.7 | 109 | 2 | US-09-180-077-12 | Sequence 12, Appl |
| 14 | 228 | 54.8 | 86 | 1 | US-08-421-144A-9 | Sequence 9, Appli |
| 15 | 219 | 52.6 | 72 | 1 | US-08-330-163-13 | Sequence 13, Appl |
| 16 | 219 | 52.6 | 72 | 1 | US-08-482-111-13 | Sequence 13, Appl |
| 17 | 219 | 52.6 | 92 | 1 | US-07-792-988-1 | Sequence 1, Appli |
| 18 | 219 | 52.6 | 92 | 1 | US-08-347-492B-10 | Sequence 10, Appl |
| 19 | 219 | 52.6 | 92 | 1 | US-08-375-346A-3 | Sequence 3, Appli |
| 20 | 219 | 52.6 | 92 | 1 | US-08-230-574-2 | Sequence 2, Appli |
| 21 | 219 | 52.6 | 92 | 1 | US-08-480-449-23 | Sequence 23, Appl |
| 22 | 219 | 52.6 | 92 | 1 | US-08-633-682-4 | Sequence 4, Appli |
| 23 | 219 | 52.6 | 92 | 1 | US-08-421-144A-3 | Sequence 3, Appli |
| 24 | 219 | 52.6 | 92 | 1 | US-08-660-542-23 | Sequence 23, Appl |
| 25 | 219 | 52.6 | 92 | 1 | US-08-535-116-3 | Sequence 3, Appli |
| 26 | 219 | 52.6 | 92 | 1 | US-08-798-143-10 | Sequence 10, Appl |
| 27 | 219 | 52.6 | 92 | 1 | US-08-467-123B-3 | Sequence 3, Appli |
| 28 | 219 | 52.6 | 92 | 2 | US-08-722-719-53 | Sequence 53, Appl |
| 29 | 219 | 52.6 | 92 | 2 | US-08-936-772-4 | Sequence 4, Appli |
| 30 | 219 | 52.6 | 92 | 2 | US-08-808-720-9 | Sequence 9, Appli |
| 31 | 219 | 52.6 | 92 | 2 | US-09-395-918-4 | Sequence 4, Appli |
| 32 | 219 | 52.6 | 92 | 2 | US-09-133-521-7 | Sequence 7, Appli |
| 33 | 219 | 52.6 | 92 | 2 | US-08-679-493A-161 | Sequence 161, App |
| 34 | 219 | 52.6 | 92 | 2 | US-08-479-603-23 | Sequence 23, Appl |
| 35 | 219 | 52.6 | 92 | 2 | US-09-334-951-53 | Sequence 53, Appl |
| 36 | 219 | 52.6 | 92 | 2 | US-09-334-923A-53 | Sequence 53, Appl |
| 37 | 219 | 52.6 | 92 | 2 | US-09-689-693-36 | Sequence 36, Appl |
| 38 | 219 | 52.6 | 92 | 2 | US-08-939-107-23 | Sequence 23, Appl |
| 39 | 219 | 52.6 | 92 | 2 | US-09-151-450-3 | Sequence 3, Appli |
| 40 | 219 | 52.6 | 92 | 2 | US-09-334-954A-53 | Sequence 53, Appl |
| 41 | 219 | 52.6 | 92 | 2 | US-09-834-795A-33 | Sequence 33, Appl |
| 42 | 219 | 52.6 | 92 | 2 | US-09-467-638-9 | Sequence 9, Appli |
| 43 | 219 | 52.6 | 92 | 2 | US-09-067-447B-23 | Sequence 23, Appl |
| 44 | 219 | 52.6 | 92 | 2 | US-08-479-620-23 | Sequence 23, Appl |
| 45 | 219 | 52.6 | 92 | 2 | US-09-571-013-55 | Sequence 55, Appl |

ALIGNMENTS

SEQUENCE COMPARISON 'A'

RESULT 1
US-08-173-209A-2
; Sequence 2, Application US/08173209A
; Patent No. 5556767
; GENERAL INFORMATION:
; APPLICANT: LI, ET AL.
; TITLE OF INVENTION: Macrophage Inflammatory Protein Gamma
; NUMBER OF SEQUENCES: 5
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN,
; ADDRESSEE: CECCHI, STEWART & OLSTEIN
; STREET: 6 BECKER FARM ROAD
; CITY: ROSELAND
; STATE: NEW JERSEY
; COUNTRY: USA
; ZIP: 07068
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5 INCH DISKETTE
; COMPUTER: IBM PS/2
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: WORD PERFECT 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/173,209A
; FILING DATE: 22 DECEMBER 1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: FERRARO, GREGORY D.
; REGISTRATION NUMBER: 36,134
; REFERENCE/DOCKET NUMBER: 325800-51
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201-994-1700
; TELEFAX: 201-994-1744
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 93 AMINO ACIDS
; TYPE: AMINO ACID
; STRANDEDNESS:
; TOPOLOGY: LINEAR
; MOLECULE TYPE: PROTEIN
US-08-173-209A-2

Query Match 100.0%; Score 416; DB 1; Length 93;
Best Local Similarity 100.0%; Pred. No. 3.4e-43;
Matches 74; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 60

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Qy          61 DKWVQDYIKDMKEN 74
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Db          80 DKWVQDYIKDMKEN 93


RESULT 2
US-08-347-492B-6
; Sequence 6, Application US/08347492B
; Patent No. 5602008
;  GENERAL INFORMATION:
;    APPLICANT:  Wilde, Craig G.
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Seilhamer, Jeffrey J.
;    TITLE OF INVENTION:  EXPRESSED CHEMOKINES, THEIR
;    TITLE OF INVENTION:  PRODUCTION AND USES
;    NUMBER OF SEQUENCES:  12
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  U.S.
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 1.5
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/347,492B
;      FILING DATE:  29-NOV-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/303,241
;      FILING DATE:  07-SEP-1994
;      APPLICATION NUMBER:  08/320,011
;      FILING DATE:  05-OCT-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Luther, Barbara J
;      REGISTRATION NUMBER:  33,954
;      REFERENCE/DOCKET NUMBER:  PF-0024
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-852-0195
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  93 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    IMMEDIATE SOURCE:
;      LIBRARY:  PITUITARY
;      CLONE:  115571
US-08-347-492B-6

  Query Match             100.0%;  Score 416;  DB 1;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 3.4e-43;
  Matches   74;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy          61 DKWVQDYIKDMKEN 74
               ||||||||||||||
Db          80 DKWVQDYIKDMKEN 93


RESULT 3
US-08-798-143-6
; Sequence 6, Application US/08798143
; Patent No. 5936068
;  GENERAL INFORMATION:
;    APPLICANT:  Wilde, Craig G.
;    APPLICANT:  Hawkins, Phillip R.
;    APPLICANT:  Bandman, Olga
;    APPLICANT:  Seilhamer, Jeffrey J.
;    TITLE OF INVENTION:  EXPRESSED CHEMOKINES, THEIR
;    TITLE OF INVENTION:  PRODUCTION AND USES
;    NUMBER OF SEQUENCES:  12
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Incyte Pharmaceuticals, Inc.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  U.S.
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 1.5
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/798,143
;      FILING DATE:  10-FEB-1997
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/347,492
;      FILING DATE:  29-NOV-1994
;      APPLICATION NUMBER:  08/303,241
;      FILING DATE:  07-SEP-1994
;      APPLICATION NUMBER:  08/320,011
;      FILING DATE:  05-OCT-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Luther, Barbara J
;      REGISTRATION NUMBER:  33,954
;      REFERENCE/DOCKET NUMBER:  PF-0024
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-852-0195
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  93 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    IMMEDIATE SOURCE:
;      LIBRARY:  PITUITARY
;      CLONE:  115571
US-08-798-143-6

  Query Match             100.0%;  Score 416;  DB 1;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 3.4e-43;
  Matches   74;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Qy          61 DKWVQDYIKDMKEN 74
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Db          80 DKWVQDYIKDMKEN 93


RESULT 4
US-08-722-719-2
; Sequence 2, Application US/08722719
; Patent No. 6001606
;  GENERAL INFORMATION:
;    APPLICANT:  ROSEN, CRAIG A.
;    APPLICANT:  RUBIN, STEVEN M.
;    APPLICANT:  LI, HAODONG
```

```
;    APPLICANT:  ADAMS, MARK D.
;    TITLE OF INVENTION:  THERAPEUTIC COMPOSITIONS AND METHODS FOR
;    TITLE OF INVENTION:  TREATING DISEASE STATES WITH MYELOID PROGENITOR INHIBITORY
;    TITLE OF INVENTION:  FACTOR-1 (MPIF-1), MONOCYTE COLONY INHIBITORY FACTOR
;    TITLE OF INVENTION:  (M-CIF), AND MACROPHAGE INHIBITORY FACTOR-4 (MIP-4)
;    NUMBER OF SEQUENCES:  64
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
;      STREET:  1100 NEW YORK AVENUE, N.W., SUITE 600
;      CITY:  WASHINGTON
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20005-3934
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/722,719
;      FILING DATE:  30-SEP-1996
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/173,209
;      FILING DATE:  22-DEC-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/208,339
;      FILING DATE:  08-MAR-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/446,881
;      FILING DATE:  05-MAY-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/465,682
;      FILING DATE:  06-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/468,775
;      FILING DATE:  06-JUN-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STEFFE, ERIC K.
;      REGISTRATION NUMBER:  36,688
;      REFERENCE/DOCKET NUMBER:  1488.0330007
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 371-2600
;      TELEFAX:  (202) 371-2540
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  93 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-722-719-2

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Qy         61 DKWVQDYIKDMKEN 74
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Db         80 DKWVQDYIKDMKEN 93


RESULT 5
US-09-180-077-7
; Sequence 7, Application US/09180077A
; Patent No. 6180773
; GENERAL INFORMATION:
;  APPLICANT: Forssmann, Wolf-Georg
;  APPLICANT: Pardigol, Andreas
;  APPLICANT: Magert, Hans-Jurgen
;  APPLICANT: Schulz-Knappe, Peter
;  TITLE OF INVENTION: NEW CC TYPE CHEMOKINES
;  FILE REFERENCE: 10496/P63140USO
;  CURRENT APPLICATION NUMBER: US/09/180,077A
;  CURRENT FILING DATE: 1998-12-30
;  EARLIER APPLICATION NUMBER: PCT/EP97/02217
;  EARLIER FILING DATE: 1997-04-30
;  EARLIER APPLICATION NUMBER: DE 196 17 312.4
;  EARLIER FILING DATE: 1996-04-30
;  NUMBER OF SEQ ID NOS: 12
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 7
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-180-077-7

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Db         20 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 79

Qy         61 DKWVQDYIKDMKEN 74
              ||||||||||||||
Db         80 DKWVQDYIKDMKEN 93


RESULT 6
US-09-334-951-2
; Sequence 2, Application US/09334951
; Patent No. 6451562
; GENERAL INFORMATION:
;  APPLICANT: Ruben, Steven M.
;  APPLICANT: Li, Haodong
;  TITLE OF INVENTION: Myeloid Progenitor Inhibitory Factor-1 (MPIF-1)
;  TITLE OF INVENTION: Polynucleotides and Polypeptides (As Amended)
;  FILE REFERENCE: 1488.033000B
;  CURRENT APPLICATION NUMBER: US/09/334,951
;  CURRENT FILING DATE: 1999-06-17
;  EARLIER APPLICATION NUMBER: US 08/208,339
;  EARLIER FILING DATE: 1994-03-08
;  EARLIER APPLICATION NUMBER: US 08/446,881
;  EARLIER FILING DATE: 1995-05-05
;  EARLIER APPLICATION NUMBER: US 08/465,682
;  EARLIER FILING DATE: 1995-06-06
;  EARLIER APPLICATION NUMBER: US 08/468,775
;  EARLIER FILING DATE: 1995-06-06
;  EARLIER APPLICATION NUMBER: US 08/722,719
;  EARLIER FILING DATE: 1996-09-30
;  NUMBER OF SEQ ID NOS: 65
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-334-951-2

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  Best Local Similarity   100.0%;  Pred. No. 3.4e-43;
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Db         20 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 79

Qy         61 DKWVQDYIKDMKEN 74
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Db         80 DKWVQDYIKDMKEN 93
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RESULT 7
US-09-334-923A-2
; Sequence 2, Application US/09334923A
; Patent No. 6488925
; GENERAL INFORMATION:
;  APPLICANT: Ruben, Steven M.
;  APPLICANT:  Li, Haodong
;  TITLE OF INVENTION: Macrophage Inflammatory Protein-4 (MIP-4) Polypeptides (As Amende
;  FILE REFERENCE: 1488.033000D
;  CURRENT APPLICATION NUMBER: US/09/334,923A
;  CURRENT FILING DATE:  1999-06-17
;  PRIOR APPLICATION NUMBER: US 08/208,339
;  PRIOR FILING DATE: 1994-03-08
;  PRIOR APPLICATION NUMBER: US 08/446,881
;  PRIOR FILING DATE: 1995-05-05
;  PRIOR APPLICATION NUMBER: US 08/465,682
;  PRIOR FILING DATE: 1995-06-06
;  PRIOR APPLICATION NUMBER: US 08/468,775
;  PRIOR FILING DATE: 1995-06-06
;  PRIOR APPLICATION NUMBER: US 08/722,719
;  PRIOR FILING DATE: 1996-09-30
;  NUMBER OF SEQ ID NOS: 65
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-334-923A-2

  Query Match             100.0%;  Score 416;  DB 2;  Length 93;
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  Matches   74;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Qy         61 DKWVQDYIKDMKEN 74
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Db         80 DKWVQDYIKDMKEN 93


RESULT 8
US-09-334-954A-2
; Sequence 2, Application US/09334954A
; Patent No. 6623942
; GENERAL INFORMATION:
;  APPLICANT: Ruben, Steven M.
;  APPLICANT:  Li, Haodong
;  TITLE OF INVENTION: Macrophage Inflammatory Protein-4 (MIP-4) Polynucleotides
;  TITLE OF INVENTION:  (As Amended)
;  FILE REFERENCE: 1488.033000C
;  CURRENT APPLICATION NUMBER: US/09/334,954A
;  CURRENT FILING DATE:  1999-06-17
;  PRIOR APPLICATION NUMBER: US 08/208,339
;  PRIOR FILING DATE: 1994-03-08
;  PRIOR APPLICATION NUMBER: US 08/446,881
;  PRIOR FILING DATE: 1995-05-05
;  PRIOR APPLICATION NUMBER: US 08/465,682
;  PRIOR FILING DATE: 1995-06-06
;  PRIOR APPLICATION NUMBER: US 08/468,775
;  PRIOR FILING DATE: 1995-06-06
;  PRIOR APPLICATION NUMBER: US 08/722,719
;  PRIOR FILING DATE: 1996-09-30
;  NUMBER OF SEQ ID NOS: 65
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
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;   ORGANISM: Homo sapiens
US-09-334-954A-2

  Query Match             100.0%;  Score 416;  DB 2;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 3.4e-43;
  Matches   74;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db         20 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 79

Qy         61 DKWVQDYIKDMKEN 74
              ||||||||||||||
Db         80 DKWVQDYIKDMKEN 93


RESULT 9
US-09-834-795A-30
; Sequence 30, Application US/09834795A
; Patent No. 6723518
; GENERAL INFORMATION:
;  APPLICANT: Lawrence, Papsidero
;  APPLICANT:  Lyn, Dyster
;  APPLICANT:  Jana, Frustaci
;  TITLE OF INVENTION: Detection and Treatment of Breast Cancer
;  FILE REFERENCE: 3380/1I127-US3
;  CURRENT APPLICATION NUMBER: US/09/834,795A
;  CURRENT FILING DATE:  2001-04-12
;  PRIOR APPLICATION NUMBER: 09/146,580
;  PRIOR FILING DATE: 1998-09-03
;  PRIOR APPLICATION NUMBER: 60/071,899
;  PRIOR FILING DATE: 1998-01-20
;  PRIOR APPLICATION NUMBER: 60/092,155
;  PRIOR FILING DATE: 1998-07-09
;  NUMBER OF SEQ ID NOS: 35
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 30
;   LENGTH: 93
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-834-795A-30

  Query Match             100.0%;  Score 416;  DB 2;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 3.4e-43;
  Matches   74;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         20 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 79

Qy         61 DKWVQDYIKDMKEN 74
              ||||||||||||||
Db         80 DKWVQDYIKDMKEN 93


RESULT 10
US-09-571-013-2
; Sequence 2, Application US/09571013
; Patent No. 6811773
;   GENERAL INFORMATION:
;        APPLICANT: GENTZ, REINER L.
;                   PATEL, VIKRAM
;        TITLE OF INVENTION: THERAPEUTIC COMPOSITIONS AND METHODS FOR
;                            TREATING DISEASE STATES WITH MYELOID PROGENITOR INHIBITORY
;                            FACTOR-1 (MPIF-1), MONOCYTE COLONY INHIBITORY FACTOR
;                            (M-CIF), AND MACROPHAGE INHIBITORY FACTOR-4 (MIP-4)
;        NUMBER OF SEQUENCES: 60
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
;             STREET: 1100 NEW YORK AVENUE, N.W., SUITE 600
;             CITY: WASHINGTON
;             STATE: DC
;             COUNTRY: USA
;             ZIP: 20005-3934
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
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;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;       CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/571,013
;             FILING DATE: 15-May-2000
;             CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US 08/941,020
;             FILING DATE: 30-SEP-1997
;             APPLICATION NUMBER: US 60/027,299
;             FILING DATE: 30-SEP-1996
;             APPLICATION NUMBER: US 60/027,300
;             FILING DATE: 30-SEP-1996
;       ATTORNEY/AGENT INFORMATION:
;             NAME: STEFFE, ERIC K.
;             REGISTRATION NUMBER: 36,688
;             REFERENCE/DOCKET NUMBER: 1488.0330009
;       TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (202) 371-2600
;             TELEFAX: (202) 371-2540
;   INFORMATION FOR SEQ ID NO: 2:
;       SEQUENCE CHARACTERISTICS:
;             LENGTH: 93 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;       MOLECULE TYPE: protein
;       SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-09-571-013-2

  Query Match             100.0%;  Score 416;  DB 2;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 3.4e-43;
  Matches   74;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         20 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 79

Qy         61 DKWVQDYIKDMKEN 74
              ||||||||||||||
Db         80 DKWVQDYIKDMKEN 93


RESULT 11
PCT-US95-15484-6
; Sequence 6, Application PC/TUS9515484
;  GENERAL INFORMATION:
;    APPLICANT:  INCYTE PHARMACEUTICALS, INC.
;    TITLE OF INVENTION:  EXPRESSED CHEMOKINES, THEIR PRODUCTION AND
;    TITLE OF INVENTION:  USES
;    NUMBER OF SEQUENCES:  6
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  INCYTE PHARMACEUTICALS, INC.
;      STREET:  3174 PORTER DRIVE
;      CITY:  PALO ALTO
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US95/15484
;      FILING DATE:  29-NOV-1995
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/347,492
;      FILING DATE:  29-NOV-1994
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  LUTHER, BARBARA J
;      REGISTRATION NUMBER:  33954
;      REFERENCE/DOCKET NUMBER:  PF-0024 PCT
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-852-0195
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  93 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  peptide
;    IMMEDIATE SOURCE:
;      LIBRARY:  Pituitary gland
;      CLONE:  111571
PCT-US95-15484-6

  Query Match             100.0%;  Score 416;  DB 4;  Length 93;
  Best Local Similarity   100.0%;  Pred. No. 3.4e-43;
  Matches   74;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         20 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 79

Qy         61 DKWVQDYIKDMKEN 74
              ||||||||||||||
Db         80 DKWVQDYIKDMKEN 93


RESULT 12
US-09-567-225-1
; Sequence 1, Application US/09567225
; Patent No. 6713052
; GENERAL INFORMATION:
;  APPLICANT:  White, John R.
;  APPLICANT:  Pelus, Louis
;  APPLICANT:  Li, Haodong
;  APPLICANT:  Kreider, Brent L.
;  TITLE OF INVENTION:  No. 6713052el Chemokine for Mobilizing Stem Cells
;  FILE REFERENCE:  1488.1550004
;  CURRENT APPLICATION NUMBER: US/09/567,225
;  CURRENT FILING DATE:  2000-10-09
;  PRIOR APPLICATION NUMBER:  US 09/225,501
;  PRIOR FILING DATE:  1999-01-06
;  PRIOR APPLICATION NUMBER:  US 60/006,051
;  PRIOR FILING DATE:  1995-10-24
;  PRIOR APPLICATION NUMBER:  US 08/740,033
;  PRIOR FILING DATE:  1996-10-23
;  NUMBER OF SEQ ID NOS:  19
;  SOFTWARE:  PatentIn version 3.0
; SEQ ID NO 1
;  LENGTH: 72
;  TYPE: PRT
;  ORGANISM: CKBeta-1
US-09-567-225-1

  Query Match             97.4%;  Score 405;  DB 2;  Length 72;
  Best Local Similarity   100.0%;  Pred. No. 5.5e-42;
  Matches   72;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 TKTESSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPS 60

Qy         61 DKWVQDYIKDMK 72
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Db         61 DKWVQDYIKDMK 72


RESULT 13
US-09-180-077-12
; Sequence 12, Application US/09180077A
; Patent No. 6180773
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; GENERAL INFORMATION:
;  APPLICANT: Forssmann, Wolf-Georg
;  APPLICANT: Pardigol, Andreas
;  APPLICANT: Magert, Hans-Jurgen
;  APPLICANT: Schulz-Knappe, Peter
;  TITLE OF INVENTION: NEW CC TYPE CHEMOKINES
;  FILE REFERENCE: 10496/P63140USO
;  CURRENT APPLICATION NUMBER: US/09/180,077A
;  CURRENT FILING DATE: 1998-12-30
;  EARLIER APPLICATION NUMBER: PCT/EP97/02217
;  EARLIER FILING DATE: 1997-04-30
;  EARLIER APPLICATION NUMBER: DE 196 17 312.4
;  EARLIER FILING DATE: 1996-04-30
;  NUMBER OF SEQ ID NOS: 12
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 12
;   LENGTH: 109
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-180-077-12

  Query Match             94.7%;  Score 394;  DB 2;  Length 109;
  Best Local Similarity   81.1%;  Pred. No. 2e-40;
  Matches   73;  Conservative    1;  Mismatches    0;  Indels   16;  Gaps    1;

Qy          1 TKTESSSR----------------GPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPG 44
              |||||||:                |||||||||||||||||||||||||||||||||||
Db         20 TKTESSSQTGGKPKVVKIQLKLVGGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPG 79

Qy         45 IVFITKRGHSVCTNPSDKWVQDYIKDMKEN 74
              |||||||||||||||||||||||||||||
Db         80 IVFITKRGHSVCTNPSDKWVQDYIKDMKEN 109


RESULT 14
US-08-421-144A-9
; Sequence 9, Application US/08421144A
; Patent No. 5874211
; GENERAL INFORMATION:
;    APPLICANT:  BANDMAN, OLGA
;    APPLICANT:  COLEMAN, ROGER
;    APPLICANT:  STUART, SUSAN G.
;    TITLE OF INVENTION:  NEW CHEMOKINE EXPRESSED IN EOSINOPHILS
;    NUMBER OF SEQUENCES:  9
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  INCYTE PHARMACEUTICALS, INC.
;      STREET:  3174 Porter Drive
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94304
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/421,144A
;      FILING DATE:  13-APR-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Luther, Barbara J.
;      REGISTRATION NUMBER:  33954
;      REFERENCE/DOCKET NUMBER:  PF-0031 US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-855-0555
;      TELEFAX:  415-852-0195
;  INFORMATION FOR SEQ ID NO:  9:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  86 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-421-144A-9

  Query Match             54.8%;  Score 228;  DB 1;  Length 86;
  Best Local Similarity   64.9%;  Pred. No. 2.5e-20;
  Matches   37;  Conservative   10;  Mismatches   10;  Indels    0;  Gaps    0;

Qy         13 PSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIK 69
              |: |||:||  ||||||:  |:||:|||||| ::| ||||  || :||:|||||:|
Db         22 PTTCCFSYTNRKIPRQRLESYFETSSQCSKPAVIFKTKRGKEVCADPSEKWVQDYMK 78


RESULT 15
US-08-330-163-13
; Sequence 13, Application US/08330163
; Patent No. 5656724
;  GENERAL INFORMATION:
;    APPLICANT:  Daly, Thomas J.
;    APPLICANT:  LaRosa, Gregory J.
;    TITLE OF INVENTION:  Chemokine-Like Proteins and Methods of
;    TITLE OF INVENTION:  Use
;    NUMBER OF SEQUENCES:  46
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  U.S.A.
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30B
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/330,163
;      FILING DATE:  05-AUG-1994
;      CLASSIFICATION:  530
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fasse, J. Peter
;      REGISTRATION NUMBER:  32,983
;      REFERENCE/DOCKET NUMBER:  00231/080001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 542-5070
;      TELEFAX:  (617) 542-8906
;  INFORMATION FOR SEQ ID NO:  13:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  72 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-330-163-13

  Query Match             52.6%;  Score 219;  DB 1;  Length 72;
  Best Local Similarity   51.5%;  Pred. No. 2.5e-19;
  Matches   35;  Conservative   17;  Mismatches   16;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:|     |: |||:||: :||:  | ||:||:|||||||::|:|||   || :||::||
Db          2 SASLAADTPTACCFSYTSRQIPQNFIADYFETSSQCSKPGVIFLTKRSRQVCADPSEEWV 61

Qy         65 QDYIKDMK 72
              | |: |::
Db         62 QKYVSDLE 69


Search completed: January 10, 2006, 23:01:07
Job time : 47 secs
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GenCore version 5.1.6


OM protein - protein search, using sw model

Run on: January 10, 2006, 22:52:16 ; Search time 38 Seconds
(without alignments)
187.369 Million cell updates/sec

Title: US-10-760-557-6
Perfect score: 416
Sequence: 1 TKTESSSRGPYHPSECCFTY.....VCTNPSDKWVQDYIKDMKEN 74

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 219 | 52.6 | 92 | 2 | A30574 | macrophage inflamm |
| 2 | 218 | 52.4 | 92 | 2 | C30552 | macrophage inflamm |
| 3 | 218 | 52.4 | 93 | 2 | B35673 | LD78-beta protein |
| 4 | 216 | 51.9 | 92 | 2 | I46730 | immune activation |
| 5 | 212 | 51.0 | 92 | 1 | A31767 | macrophage inflamm |
| 6 | 200.5 | 48.2 | 92 | 2 | A32393 | macrophage inflamm |
| 7 | 191.5 | 46.0 | 92 | 2 | I52322 | macrophage inflamm |
| 8 | 172 | 41.3 | 91 | 1 | A28815 | monocyte chemoattr |
| 9 | 167 | 40.1 | 91 | 1 | A46539 | monocyte chemoattr |
| 10 | 163.5 | 39.3 | 120 | 2 | JE0177 | lymphocyte and mon |
| 11 | 163 | 39.2 | 50 | 2 | C60407 | monocyte adherence |
| 12 | 157.5 | 37.9 | 116 | 2 | I49555 | gene C10 protein - |
| 13 | 150.5 | 36.2 | 148 | 1 | A30209 | PDGF-inducible JE |
| 14 | 145.5 | 35.0 | 99 | 2 | JC5295 | monocyte chemotact |
| 15 | 145.5 | 35.0 | 148 | 1 | S07723 | immediate-early se |
| 16 | 144 | 34.6 | 99 | 2 | JC2136 | monocyte chemoattr |
| 17 | 139.5 | 33.5 | 125 | 2 | I46857 | monocyte chemoattr |
| 18 | 138.5 | 33.3 | 109 | 2 | A54678 | monocyte chemotact |
| 19 | 136 | 32.7 | 99 | 1 | A39296 | monocyte chemoattr |
| 20 | 136 | 32.7 | 99 | 2 | JC2336 | monocyte chemoattr |
| 21 | 128.5 | 30.9 | 97 | 2 | JC4912 | eotaxin precursor |
| 22 | 127.5 | 30.6 | 99 | 2 | JC2417 | monocyte chemoattr |
| 23 | 126 | 30.3 | 120 | 2 | I48147 | monocyte chemoattr |
| 24 | 123.5 | 29.7 | 96 | 2 | JC2478 | eotaxin precursor |
| 25 | 123.5 | 29.7 | 96 | 2 | I48099 | eotaxin precursor |
| 26 | 122.5 | 29.4 | 99 | 2 | A60299 | monocyte chemoattr |
| 27 | 122 | 29.3 | 72 | 2 | A55984 | monocyte chemotact |
| 28 | 119 | 28.6 | 96 | 2 | A37236 | I-309 protein prec |
| 29 | 113 | 27.2 | 114 | 1 | ETHUL | lymphotactin precu |
| 30 | 107.5 | 25.8 | 97 | 2 | A48093 | monocytic cytokine |
| 31 | 92 | 22.1 | 114 | 1 | ETMSL | lymphotactin precu |
| 32 | 86.5 | 20.8 | 92 | 2 | S24236 | TCA3 protein - mou |
| 33 | 77.5 | 18.6 | 95 | 2 | JN0841 | interleukin-8 - do |
| 34 | 75.5 | 18.1 | 101 | 2 | S42496 | interleukin-8 prec |
| 35 | 71.5 | 17.2 | 101 | 2 | I46871 | interleukin-8 - ra |
| 36 | 71 | 17.1 | 103 | 2 | A53096 | interleukin-8 prec |
| 37 | 68.5 | 16.5 | 103 | 2 | I50417 | RSV-induced protei |
| 38 | 68.5 | 16.5 | 103 | 2 | A26736 | transformation-ind |
| 39 | 68.5 | 16.5 | 311 | 2 | T23873 | hypothetical prote |
| 40 | 68.5 | 16.5 | 316 | 2 | H90372 | catechol 2,3-dioxy |
| 41 | 66 | 15.9 | 101 | 2 | I48148 | Neutrophil attract |
| 42 | 66 | 15.9 | 942 | 2 | T19553 | hypothetical prote |
| 43 | 65 | 15.6 | 348 | 2 | T03911 | r40c1 protein - ri |
| 44 | 64.5 | 15.5 | 99 | 2 | A37034 | interleukin-8 prec |
| 45 | 63.5 | 15.3 | 461 | 1 | A35356 | tumor necrosis fac |

ALIGNMENTS

RESULT 1
A30574
macrophage inflammatory protein 1-alpha precursor - human
N;Alternate names: LD78-alpha protein precursor; lymphocyte tumor promoter-induced protei
tivation protein 1
C;Species: Homo sapiens (man)
C;Date: 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 09-Jul-2004
C;Accession: A35673; A30574; A30412; A24198; A30908
R;Nakao, M.; Nomiyama, H.; Shimada, K.
Mol. Cell. Biol. 10, 3646-3658, 1990
A;Title: Structures of human genes coding for cytokine LD78 and their expression.
A;Reference number: A35673; MUID:90287155; PMID:1694014
A;Accession: A35673
A;Molecule type: DNA
A;Residues: 1-92 <NAK>
A;Cross-references: UNIPROT:P10147; UNIPARC:UPI00001362C9; GB:D90144; NID:g219905; PIDN:E
R;Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist, U.
J. Immunol. 142, 1582-1590, 1989
A;Title: Mitogenic activation of human T cells induces two closely related genes which sh
A;Reference number: A30574; MUID:89140347; PMID:2521882
A;Accession: A30574
A;Molecule type: mRNA
A;Residues: 1-92 <ZIP>
A;Cross-references: UNIPARC:UPI00001362C9; GB:M25315; NID:g602452; PIDN:AAA57255.1; PID:g
R;Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
DNA Cell Biol. 9, 589-602, 1990
A;Title: Three human homologs of a murine gene encoding an inhibitor of stem cell prolife
A;Reference number: A30412; MUID:91103879; PMID:2271120
A;Accession: A30412
A;Molecule type: mRNA
A;Residues: 1-92 <BLU>
A;Cross-references: UNIPARC:UPI00001362C9; GB:M23178; GB:M32337; NID:g182846; PIDN:AAA358
R;Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
J. Biochem. 99, 885-894, 1986
A;Title: A cDNA clone used to study mRNA inducible in human tonsillar lymphocytes by a tu
A;Reference number: A24198; MUID:86223879; PMID:3086300
A;Accession: A24198
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-92 <OBA>
A;Cross-references: UNIPARC:UPI00001362C9; GB:X03754; NID:g34298; PIDN:CAA27388.1; PID:g7
C;Genetics:
A;Gene: GDB:SCYA3
A;Cross-references: GDB:120368; OMIM:182283
A;Map position: 17q11-17q21
C;Superfamily: macrophage inflammatory protein
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-92/Product: macrophage inflammatory protein 1-alpha #status predicted <MAT>
F;33-57,34-73/Disulfide bonds: #status predicted

Query Match 52.6%; Score 219; DB 2; Length 92;
Best Local Similarity 51.5%; Pred. No. 1.5e-17;

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  Matches   35;  Conservative   17;  Mismatches   16;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
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Db         22 SASLAADTPTACCFSYTSRQIPQNFIADYFETSSQCSKPGVIFLTKRSRQVCADPSEEWV 81

Qy         65 QDYIKDMK 72
              | |: |::
Db         82 QKYVSDLE 89


RESULT 2
C30552
macrophage inflammatory protein 1-beta precursor - mouse
N;Alternate names: H400; SIS gamma; T-cell activation protein gamma
C;Species: Mus musculus (house mouse)
C;Date: 28-Aug-1989 #sequence_revision 28-Aug-1989 #text_change 09-Jul-2004
C;Accession: C30552; JL0088; PS0304; S22042
R;Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
J. Immunol. 142, 679-687, 1989
A;Title: A family of small inducible proteins secreted by leukocytes are members of a ne
s of various activation processes.
A;Reference number: A30552; MUID:89093958; PMID:2521353
A;Accession: C30552
A;Molecule type: mRNA
A;Residues: 1-92 <BRO>
A;Cross-references: UNIPROT:P14097; UNIPARC:UPI0000000293; GB:M23503; NID:g533244; PIDN:
R;Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; Davatelis, G.; Wolpe, S.D.; Mas
J. Exp. Med. 168, 2251-2259, 1988
A;Title: Resolution of the two components of macrophage inflammatory protein 1, and clon
A;Reference number: JL0088; MUID:89067830; PMID:3058856
A;Accession: JL0088
A;Molecule type: mRNA
A;Residues: 1-92 <SHE>
A;Cross-references: UNIPARC:UPI0000000293; GB:M35590; NID:g199696; PIDN:AAA39708.1; PID:
A;Accession: PS0304
A;Molecule type: protein
A;Residues: 24-33,'XX',36,'X',38 <SH2>
A;Cross-references: UNIPARC:UPI0000176746
R;Daubersies, P.; Lepretre, F.; Bailleul, B.; Grove, M.; Pragnell, I.; Plumb, M.
submitted to the EMBL Data Library, October 1991
A;Description: Sequence of the murine macrophage inflammatory protein 1b gene.
A;Reference number: S22042
A;Accession: S22042
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-92 <DAU>
A;Cross-references: UNIPARC:UPI0000000293; EMBL:X62502; NID:g53126; PIDN:CAA44364.1; PID
C;Comment: This protein is a monokine.
C;Genetics:
A;Introns: 26/1; 64/2
C;Superfamily: macrophage inflammatory protein
C;Keywords: glycoprotein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-92/Product: macrophage inflammatory protein 1-beta #status experimental <MAT>
F;76/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match             52.4%;  Score 218;  DB 2;  Length 92;
  Best Local Similarity   50.0%;  Pred. No. 1.9e-17;
  Matches   35;  Conservative   16;  Mismatches   19;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |   |: |||:||: :: |  :|||||:| |||| :||:||||  :| |||: ||
Db         23 SAPMGSDPPTSCCFSYTSRQLHRSFVMDYYETSSLCSKPAVVFLTKRGRQICANPSEPWV 82

Qy         65 QDYIKDMKEN 74
              :|: |:: |
Db         83 TEYMSDLELN 92


RESULT 3
B35673
LD78-beta protein precursor - human
N;Alternate names: macrophage inflammatory protein homolog GOS19-2; small inducible cytok
C;Species: Homo sapiens (man)
C;Date: 28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change 09-Jul-2004
C;Accession: B35673; B30412; S10157; B30908
R;Nakao, M.; Nomiyama, H.; Shimada, K.
Mol. Cell. Biol. 10, 3646-3658, 1990
A;Title: Structures of human genes coding for cytokine LD78 and their expression.
A;Reference number: A35673; MUID:90287155; PMID:1694014
A;Accession: B35673
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-93 <NAK>
A;Cross-references: UNIPROT:P16619; UNIPARC:UPI000004457D; GB:D90145; NID:g219907; PIDN:I
R;Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
DNA Cell Biol. 9, 589-602, 1990
A;Title: Three human homologs of a murine gene encoding an inhibitor of stem cell prolife
A;Reference number: A30412; MUID:91103879; PMID:2271120
A;Accession: B30412
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-93 <BLU>
A;Cross-references: UNIPARC:UPI000004457D; GB:M24110; GB:M32338; NID:g182848; PIDN:AAA35
R;Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, O.W.; Morton, C.C.; Burd, P.R.; Siebenl
Nucleic Acids Res. 18, 3261-3270, 1990
A;Title: Two inflammatory mediator cytokine genes are closely linked and variably amplifi
A;Reference number: S10157; MUID:90287702; PMID:1972563
A;Accession: S10157
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-93 <IRV>
A;Cross-references: UNIPARC:UPI000004457D; EMBL:X52149; NID:g34750; PIDN:CAA36397.1; PID:
C;Comment: This protein is a member of a "small inducible" or "activation specific" gene
C;Genetics:
A;Gene: GDB:SCYA4
A;Cross-references: GDB:120369; OMIM:182284
A;Map position: 17q11-17q21
A;Introns: 26/1; 64/2
C;Superfamily: macrophage inflammatory protein
C;Keywords: cytokine
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-93/Product: LD78-beta protein #status predicted <MAT>

  Query Match             52.4%;  Score 218;  DB 2;  Length 93;
  Best Local Similarity   55.0%;  Pred. No. 1.9e-17;
  Matches   33;  Conservative   16;  Mismatches   11;  Indels    0;  Gaps    0;

Qy         13 PSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKDMK 72
              |: |||:||: :||:  | ||:||:|||||| ::|:|||| || :||::||| |: |::
Db         31 PTACCFSYTSRQIPQNFIADYFETSSQCSKPSVIFLTKRGRQVCADPSEEWVQKYVSDLE 90


RESULT 4
I46730
immune activation gene 2 - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
C;Accession: I46730
R;Mori, S.; Goto, K.; Goto, F.; Mutakami, K.; Ohkawara, S.; Yoshinaga, M.
Int. Immunol. 6, 149-156, 1994
A;Title: Dynamic changes in mRNA expression of neutrophils during the course of acute inf
A;Reference number: I46730; MUID:94198229; PMID:8148323
A;Accession: I46730
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-92 <MOR>
A;Cross-references: UNIPROT:P46632; UNIPARC:UPI00001362CD; GB:D17402; NID:g599577; PIDN:I
C;Superfamily: macrophage inflammatory protein

  Query Match             51.9%;  Score 216;  DB 2;  Length 92;
  Best Local Similarity   50.0%;  Pred. No. 3.2e-17;
  Matches   35;  Conservative   15;  Mismatches   20;  Indels    0;  Gaps    0;

Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
```

```
           |:  |   |: |||:||  |:||  ::||:|| | ||:| :|| ||:|  || |||: ||
Db         23 SAPMGSDPPTACCFSYTLRKLPRHFVIDYFETTSLCSQPAVVFQTKKGRQVCANPSESWV 82

Qy         65 QDYIKDMKEN 74
              |:|: |:: |
Db         83 QEYVDDLELN 92
```

RESULT 5
A31767
macrophage inflammatory protein 1-beta precursor [validated] - human
N;Alternate names: cytokine HC21; G-26 protein; H400 homolog; lymphocyte activation gene
protein 2 (Act-2); T-cell activation protein gamma
C;Species: Homo sapiens (man)
C;Date: 07-Jun-1990 #sequence_revision 29-May-1998 #text_change 09-Jul-2004
C;Accession: JH0319; A40978; A31767; A37411; B30574; B45817; D30552
R;Baixeras, E.; Roman-Roman, S.; Jitsukawa, S.; Genevee, C.; Mechiche, S.; Viegas-Pequig
Mol. Immunol. 27, 1091-1102, 1990
A;Title: Cloning and expression of a lymphocyte activation gene (LAG-1).
A;Reference number: JH0319; MUID:91061800; PMID:2247088
A;Accession: JH0319
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-92 <BAI>
A;Cross-references: UNIPROT:P13236; UNIPARC:UPI00001362CC; GB:X53682; NID:g34217; PIDN:C
A;Experimental source: natural killer cell, strain CD3-CD2+, F5, 5IIIE5
R;Napolitano, M.; Modi, W.S.; Cevario, S.J.; Gnarra, J.R.; Seuanez, H.N.; Leonard, W.J.
J. Biol. Chem. 266, 17531-17536, 1991
A;Title: The gene encoding the Act-2 cytokine. Genomic structure, HTLV-I/tax responsiven
A;Reference number: A40978; MUID:91373378; PMID:1894635
A;Accession: A40978
A;Molecule type: DNA
A;Residues: 1-14,'S',16-69,'G',71-92 <NAP>
A;Cross-references: UNIPARC:UPI000016A493; GB:M69201; NID:g178021
A;Note: 15-Ala was also found
R;Lipes, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.; Leonard, W.J.
Proc. Natl. Acad. Sci. U.S.A. 85, 9704-9708, 1988
A;Title: Identification, cloning, and characterization of an immune activation gene.
A;Reference number: A31767; MUID:89071764; PMID:2462251
A;Accession: A31767
A;Molecule type: mRNA
A;Residues: 1-92 <LIP>
A;Cross-references: UNIPARC:UPI00001362CC; GB:J04130; NID:g178017; PIDN:AAA51576.1; PID:
R;Chang, H.C.; Reinherz, E.L.
Eur. J. Immunol. 19, 1045-1051, 1989
A;Title: Isolation and characterization of a cDNA encoding a putative cytokine which is
A;Reference number: A37411; MUID:89325421; PMID:2568930
A;Accession: A37411
A;Molecule type: mRNA
A;Residues: 1-92 <CHA>
A;Cross-references: UNIPARC:UPI00001362CC; GB:X16166; NID:g32035; PIDN:CAA34291.1; PID:g
R;Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist, U.
J. Immunol. 142, 1582-1590, 1989
A;Title: Mitogenic activation of human T cells induces two closely related genes which s
A;Reference number: A30574; MUID:89140347; PMID:2521882
A;Accession: B30574
A;Molecule type: mRNA
A;Residues: 1-19,'L',21-92 <ZIP>
A;Cross-references: UNIPARC:UPI000016A787; GB:M25316; NID:g602454; PIDN:AAA57256.1; PID:
R;Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
J. Immunol. 143, 2907-2916, 1989
A;Title: A novel polypeptide secreted by activated human T lymphocytes.
A;Reference number: A45817; MUID:90038522; PMID:2809212
A;Accession: B45817
A;Molecule type: mRNA
A;Residues: 7-55,'I',57-79,'T',81-92 <MIL>
A;Cross-references: UNIPARC:UPI00001736A0; GB:M57503; NID:g339726; PIDN:AAA36752.1; PID:
R;Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
J. Immunol. 142, 679-687, 1989
A;Title: A family of small inducible proteins secreted by leukocytes are members of a ne
s of various activation processes.
A;Reference number: A30552; MUID:89093958; PMID:2521353
A;Accession: D30552
A;Molecule type: mRNA
A;Residues: 1-39,'REASS',46-92 <BRO>
A;Cross-references: UNIPARC:UPI0000147059; GB:M23502; NID:g533212; PIDN:AAA36656.1; PID:g
R;Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
submitted to the Brookhaven Protein Data Bank, January 1994
A;Reference number: A52206; PDB:1HUM
A;Contents: annotation; conformation and disulfide bond assignments by (1)H-NMR, residues
C;Comment: This protein is secreted by activated lymphocytes and monocytes. It is bound t
C;Genetics:
A;Gene: GDB:LAG1
A;Cross-references: GDB:127451; OMIM:153335
A;Map position: 17q21-17q21
A;Introns: 26/1; 64/2
C;Superfamily: macrophage inflammatory protein
C;Keywords: chemotaxis; cytokine; inflammation
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-92/Product: macrophage inflammatory protein 1-beta #status experimental <MAT>
F;34-58,35-74/Disulfide bonds: #status experimental

  Query Match             51.0%;  Score 212;  DB 1;  Length 92;
  Best Local Similarity   50.0%;  Pred. No. 9e-17;
  Matches   35;  Conservative   15;  Mismatches   20;  Indels    0;  Gaps    0;

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Qy          5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
              |:  |   |: |||:||  |:||  ::|||||:| ||:| :|| |||   || :||: ||
Db         23 SAPMGSDPPTACCFSYTARKLPRNFVVDYYETSSLCSQPAVVFQTKRSKQVCADPSESWV 82

Qy         65 QDYIKDMKEN 74
              |:|: |:: |
Db         83 QEYVYDLELN 92
```

RESULT 6
A32393
macrophage inflammatory protein-1-alpha precursor - mouse
N;Alternate names: heparin-binding chemotaxis protein; L2G25B protein; SCI/MIP-1a; SIS al
C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 09-Jul-2004
C;Accession: S11685; A32393; S04533; A53885; A30552; PS0303; A27596; I56104
R;Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
Nucleic Acids Res. 18, 5561, 1990
A;Title: Sequence of the murine haemopoietic stem cell inhibitor/macrophage inflammatory
A;Reference number: S11685; MUID:91016858; PMID:2216738
A;Accession: S11685
A;Molecule type: DNA
A;Residues: 1-92 <GRO>
A;Cross-references: UNIPROT:P10855; UNIPARC:UPI0000020B06; EMBL:X53372; NID:g54062; PIDN:
A;Note: the authors' translation of the nucleotide sequence differs at several positions
R;Kwon, B.S.; Weissman, S.M.
Proc. Natl. Acad. Sci. U.S.A. 86, 1963-1967, 1989
A;Title: cDNA sequence of two inducible T-cell genes.
A;Reference number: A32393; MUID:89184547; PMID:2784565
A;Accession: A32393
A;Molecule type: mRNA
A;Residues: 1-92 <KWO>
A;Cross-references: UNIPARC:UPI0000020B06; GB:J04491; NID:g201524; PIDN:AAA40304.1; PID:g
R;Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermsen, K.; Luedke, C.; Gallegos, C.; Co
J. Exp. Med. 167, 1939-1944, 1988
A;Title: Cloning and characterization of a cDNA for murine macrophage inflammatory protei
A;Reference number: S04533; MUID:88258380; PMID:3290382
A;Accession: S04533
A;Molecule type: mRNA
A;Residues: 1-48,'E',50-90,'I',92 <DA2>
A;Cross-references: UNIPARC:UPI0000176749; EMBL:X12531
A;Note: the authors translated the codon GAG for residue 49 as Asp and ATT for residue 91
A;Note: the sequence has been corrected in reference A53885
R;Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermsen, K.; Luedke, C.; Gallegos, C.; Co
J. Exp. Med. 170, 2189, 1989
A;Reference number: A53885
A;Contents: erratum
A;Accession: A53885
A;Molecule type: mRNA
A;Residues: 1-92 <DAV>

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A;Cross-references: UNIPARC:UPI0000020B06; EMBL:X12531; NID:g53122; PIDN:CAA31047.1; PID
R;Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
J. Immunol. 142, 679-687, 1989
A;Title: A family of small inducible proteins secreted by leukocytes are members of a ne
s of various activation processes.
A;Reference number: A30552; MUID:89093958; PMID:2521353
A;Accession: A30552
A;Molecule type: mRNA
A;Residues: 1-21,'L',23-61,'A',63-92 <BRO>
A;Cross-references: UNIPARC:UPI000016D05B; GB:M23447; NID:g533240; PIDN:AAA40146.1; PID:
R;Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; Davatelis, G.; Wolpe, S.D.; Mas
J. Exp. Med. 168, 2251-2259, 1988
A;Title: Resolution of the two components of macrophage inflammatory protein 1, and clon
A;Reference number: JL0088; MUID:89067830; PMID:3058856
A;Accession: PS0303
A;Molecule type: mRNA
A;Residues: 24-33,'XX',36-54 <SHE>
A;Cross-references: UNIPARC:UPI000017674A
R;Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse, D.G.; Nguyen, H.T.; Moldaw
J. Exp. Med. 167, 570-581, 1988
A;Title: Macrophages secrete a novel heparin-binding protein with inflammatory and neutr
A;Reference number: A27596; MUID:88154745; PMID:3279154
A;Accession: A27596
A;Molecule type: protein
A;Residues: 24-33,'XX',36-42 <WOL>
A;Cross-references: UNIPARC:UPI000017674B
A;Note: 26-Met, 30-Pro, and 39-Thr were also found
R;Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.; Sherry, B.; Cerami, A.
J. Immunol. 146, 4031-4040, 1991
A;Title: Genomic structure of murine macrophage inflammatory protein-1-alpha and conserv
A;Reference number: I56104; MUID:91237116; PMID:2033269
A;Accession: I56104
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-92 <RES>
A;Cross-references: UNIPARC:UPI0000020B06; GB:M73061; NID:g199694; PIDN:AAA39707.1; PID:
C;Comment: This protein is a monokine.
C;Genetics:
A;Introns: 23/3; 26/1; 63/2
C;Superfamily: macrophage inflammatory protein
C;Keywords: heparin binding
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-92/Product: macrophage inflammatory protein #status experimental <MAT>

  Query Match             48.2%;  Score 200.5;  DB 2;  Length 92;
  Best Local Similarity   48.6%;  Pred. No. 1.8e-15;
  Matches   34;  Conservative   17;  Mismatches   18;  Indels    1;  Gaps    1;

Qy           5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
               |:  |    |: |||:|:  |||||  |:||:||:| ||:||::|:|||   :| :  : ||
Db          23 SAPYGADTPTACCFSYSR-KIPRQFIVDYFETSSLCSQPGVIFLTKRNRQICADSKETWV 81

Qy          65 QDYIKDMKEN 74
               |:|| |:: |
Db          82 QEYITDLELN 91


RESULT 7
I52322
macrophage inflammatory protein-1alpha - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 09-Jul-2004
C;Accession: I52322
R;Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
Biochem. Biophys. Res. Commun. 211, 289-295, 1995
A;Title: Molecular cloning and posttranscriptional regulation of macrophage inflammatory
A;Reference number: I52322; MUID:95298037; PMID:7779098
A;Accession: I52322
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-92 <RES>
A;Cross-references: UNIPROT:P50229; UNIPARC:UPI00001362CA; EMBL:U22414; NID:g790632; PID
C;Superfamily: macrophage inflammatory protein

  Query Match             46.0%;  Score 191.5;  DB 2;  Length 92;
  Best Local Similarity   45.7%;  Pred. No. 1.8e-14;
  Matches   32;  Conservative   18;  Mismatches   19;  Indels    1;  Gaps    1;

Qy           5 SSSRGPYHPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWV 64
               |:  |    |: |||:|   :|||: | ||:||:| ||:||::|:|||   :| :| : ||
Db          23 SAPYGADTPTACCFSYGR-QIPRKFIADYFETSSLCSQPGVIFLTKRNRQICADPKETWV 81

Qy          65 QDYIKDMKEN 74
               |:|| ::: |
Db          82 QEYITELELN 91


RESULT 8
A28815
monocyte chemoattractant cytokine RANTES precursor - human
N;Alternate names: small inducible cytokine A5; T-cell specific cytokine RANTES
C;Species: Homo sapiens (man)
C;Date: 30-Jun-1989 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
C;Accession: A28815
R;Schall, T.J.; Jongstra, J.; Dyer, B.J.; Jorgensen, J.; Clayberger, C.; Davis, M.M.; Kre
J. Immunol. 141, 1018-1025, 1988
A;Title: A human T cell-specific molecule is a member of a new gene family.
A;Reference number: A28815; MUID:88285659; PMID:2456327
A;Accession: A28815
A;Molecule type: mRNA
A;Residues: 1-91 <SCH>
A;Cross-references: UNIPROT:P13501; UNIPARC:UPI000004A187; GB:M21121
C;Comment: The acronym RANTES reflects the description "Regulated upon Activation, Normal
C;Genetics:
A;Gene: GDB:SCYA5; D17S136E
A;Cross-references: GDB:120749; OMIM:187011
A;Map position: 17q11.2-17q12
C;Superfamily: macrophage inflammatory protein
C;Keywords: chemotaxis; cytokine; immediate-early protein; inflammation; T-cell
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-91/Product: T-cell protein RANTES #status predicted <MAT>

  Query Match             41.3%;  Score 172;  DB 1;  Length 91;
  Best Local Similarity   39.1%;  Pred. No. 2.8e-12;
  Matches   27;  Conservative   15;  Mismatches   25;  Indels    2;  Gaps    1;

Qy           6 SSRGPY--HPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKW 63
               :|  ||    : |||  |    :||  | :|: |: :|| | :||:|::   || ||  ||
Db          21 ASASPYSSDTTPCCFAYIARPLPRAHIKEYFYTSGKCSNPAVVFVTRKNRQVCANPEKKW 80

Qy          64 VQDYIKDMK 72
                 |::||  ::
Db          81 VREYINSLE 89


RESULT 9
A46539
monocyte chemoattractant cytokine RANTES precursor - mouse
N;Alternate names: MuRantes
C;Species: Mus musculus (house mouse)
C;Date: 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
C;Accession: I48875; A46539; I48654; I56970
R;Danoff, T.M.; Lalley, P.A.; Chang, Y.S.; Heeger, P.S.; Neilson, E.G.
J. Immunol. 152, 1182-1189, 1994
A;Title: Cloning, genomic organization, and chromosomal localization of the Scya5 gene er
A;Reference number: I48875; MUID:94132613; PMID:7507961
A;Accession: I48875
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-91 <DAN>
A;Cross-references: UNIPROT:P30882; UNIPARC:UPI000000028C; EMBL:U02298; NID:g460090; PIDN
R;Schall, T.J.; Simpson, N.J.; Mak, J.Y.
Eur. J. Immunol. 22, 1477-1481, 1992
A;Title: Molecular cloning and expression of the murine RANTES cytokine: structural and f
A;Reference number: A46539; MUID:92289805; PMID:1376260
A;Accession: A46539
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A;Molecule type: mRNA
A;Residues: 1-18,'A',20-91 <SCH>
A;Cross-references: UNIPARC:UPI0000151811; GB:S37648; NID:g250207; PIDN:AAB22330.1; PID:
A;Experimental source: macrophage cell line PU5-1.8
A;Note: sequence extracted from NCBI backbone (NCBIN:106768, NCBIP:106770)
R;Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher, S.N.; Paznekas, W.A.
Mol. Cell. Biol. 14, 2914-2925, 1994
A;Title: Definition of a lipopolysaccharide-responsive element in the 5'-flanking regior
A;Reference number: I48654; MUID:94217689; PMID:7513046
A;Accession: I48654
A;Status: translation not shown; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-91 <SHI>
A;Cross-references: UNIPARC:UPI000000028C; EMBL:X70675; NID:g475205; PIDN:CAA50011.1; PI
R;Neilson, E.G.; Krensky, A.
Kidney Int. 41, 220-225, 1992
A;Title: Isolation and characterization of cDNA from renal tubular epithelium encoding m
A;Reference number: I56970; MUID:92277990; PMID:1375672
A;Accession: I56970
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-40,'E',42-91 <NEI>
A;Cross-references: UNIPARC:UPI000016380F; GB:M77747; NID:g200649; PIDN:AAA40029.1; PID:
C;Comment: This chemoattractant for monocytes but not neutrophils is an immediate-early
C;Genetics:
A;Introns: 26/1; 63/2
C;Superfamily: macrophage inflammatory protein
C;Keywords: chemotaxis; cytokine; immediate-early protein; inflammation
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-91/Product: monocyte chemoattractant cytokine RANTES #status predicted <MAT>

  Query Match  40.1%;  Score 167;  DB 1;  Length 91;
  Best Local Similarity  44.3%;  Pred. No. 1e-11;
  Matches  27;  Conservative  12;  Mismatches  20;  Indels  2;  Gaps  1;

Qy  10 PY--HPSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWVQDY 67
Db  25 PYGSDTTPCCFAYLSLALPRAHVKEYFYTSSKCSNLAVVFVTRRNRQVCANPEKKWVQEY 84

Qy  68 I 68
Db  85 I 85

RESULT 10
JE0177
lymphocyte and monocyte chemoattractant CC chemokine - human
C;Species: Homo sapiens (man)
C;Date: 10-Jul-1998 #sequence_revision 10-Jul-1998 #text_change 17-Mar-1999
C;Accession: JE0177
R;Youn, B.S.; Zhang, S.; Broxmeryer, H.E.; Antol, K.; Fraser Jr., M.J.; Hangoc, G.; Kwor
Biochem. Biophys. Res. Commun. 247, 217-222, 1998
A;Title: Isolation and characterization of LMC, a novel lymphocyte and monocyte chemoatt
A;Reference number: JE0177; MUID:98308096; PMID:9642106
A;Accession: JE0177
A;Molecule type: mRNA
A;Residues: 1-120 <YOU>
A;Cross-references: UNIPARC:UPI000017C296

  Query Match  39.3%;  Score 163.5;  DB 2;  Length 120;
  Best Local Similarity  50.0%;  Pred. No. 3.3e-11;
  Matches  29;  Conservative  8;  Mismatches  20;  Indels  1;  Gaps  1;

Qy  13 PSECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKD 70
Db  34 PSTCCLKYYE-KVPLRRLVVGYRKALNCHLPAIIFVTKRNREVCTNPNDDWVQEYIKD 90

RESULT 11
C60407
monocyte adherence-induced protein 5 beta - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change 31-Dec-2004
C;Accession: C60407
R;Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.; Martin, G.; Ladner, M.; Haskill,
J. Immunol. 144, 4434-4441, 1990
A;Title: Monocyte adherence results in selective induction of novel genes sharing homolog
A;Reference number: A60407; MUID:90257367; PMID:2341726
A;Accession: C60407
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-50 <SPO>
A;Cross-references: UNIPROT:Q8NHW4; UNIPARC:UPI0000176747

  Query Match  39.2%;  Score 163;  DB 2;  Length 50;
  Best Local Similarity  52.0%;  Pred. No. 1.6e-11;
  Matches  26;  Conservative  12;  Mismatches  12;  Indels  0;  Gaps  0;

Qy  25 IPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKDMKEN 74
Db  1 VPRNFVVDYYETSSLCSQPAVVFQTKRSKQVCADPSESWVQEYVYDLELN 50

RESULT 12
I49555
gene C10 protein - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: I49555
R;Orlofsky, A.; Berger, M.S.; Prystowsky, M.B.
Cell Regul. 2, 403-412, 1991
A;Title: Novel expression pattern of a new member of the MIP-1 family of cytokine-like ge
A;Reference number: I49555; MUID:91370083; PMID:1832565
A;Accession: I49555
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-116 <RES>
A;Cross-references: UNIPROT:P27784; UNIPARC:UPI000000028D; GB:M58004; NID:g192243; PIDN:A
C;Genetics:
A;Gene: C10
C;Superfamily: macrophage inflammatory protein

  Query Match  37.9%;  Score 157.5;  DB 2;  Length 116;
  Best Local Similarity  46.7%;  Pred. No. 1.5e-10;
  Matches  28;  Conservative  15;  Mismatches  16;  Indels  1;  Gaps  1;

Qy  14 SECCFTYTTYKIPRQRIMDYYETNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKDMKE 73
Db  48 SDCCFSYAT-QIPCKRFIYYFPTSGGCIKPGIIFISRRGTQVCADPSDRRVQRCLSTLKQ 106

RESULT 13
A30209
PDGF-inducible JE glycoprotein precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: A30209; A44771; A30861
R;Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
Proc. Natl. Acad. Sci. U.S.A. 85, 3738-3742, 1988
A;Title: Cloning and expression of JE, a gene inducible by platelet-derived growth factor
A;Reference number: A30209; MUID:88234501; PMID:3287374
A;Accession: A30209
A;Molecule type: DNA
A;Residues: 1-148 <ROL>
A;Cross-references: UNIPROT:P10148; UNIPARC:UPI0000020A69; GB:M19681; NID:g193486; PIDN:A
R;Kawahara, R.S.; Deuel, T.F.
J. Biol. Chem. 264, 679-682, 1989
A;Title: Platelet-derived growth factor-inducible gene JE is a member of a family of smal
A;Reference number: A44771; MUID:89093129; PMID:2910858
A;Accession: A44771
A;Molecule type: DNA; mRNA
A;Residues: 1-148 <KA2>
A;Cross-references: UNIPARC:UPI0000020A69; GB:J04467; NID:g193488; PIDN:AAA37685.1; PID:
C;Genetics:
A;Gene: JE
A;Introns: 26/1; 65/2

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C;Superfamily: macrophage inflammatory protein
C;Keywords: cytokine; glycoprotein
F;126/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match             36.2%;  Score 150.5;  DB 1;  Length 148;
  Best Local Similarity   41.3%;  Pred. No. 1.2e-09;
  Matches   26;  Conservative   13;  Mismatches   23;  Indels    1;  Gaps    1;

Qy         13 PSECCFTYTTYKIPRQRIMDYYE-TNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKDM 71
              |  ||:::|:  ||  |:  |  |:|:| |  :||:||    || :|  :||| |||::
Db         31 PLTCCYSFTSKMIPMSRLESYKRITSSRCPKEAVVFVTKLKREVCADPKKEWVQTYIKNL 90

Qy         72 KEN 74
                |
Db         91 DRN 93


RESULT 14
JC5295
monocyte chemotactic protein-2 precursor - human
C;Species: Homo sapiens (man)
C;Date: 02-May-1997 #sequence_revision 18-Jul-1997 #text_change 09-Jul-2004
C;Accession: JC5295
R;Van Coillie, E.; Froyen, G.; Nomiyama, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van Da
Biochem. Biophys. Res. Commun. 231, 726-730, 1997
A;Title: Human monocyte chemotactic protein-2: cDNA cloning and regulated expression of
A;Reference number: JC5295; MUID:97224420; PMID:9070881
A;Accession: JC5295
A;Molecule type: mRNA
A;Residues: 1-99 <VAN>
A;Cross-references: UNIPROT:P80075; UNIPARC:UPI0000030FC6; GB:Y10802; NID:g1924937; PIDN
A;Experimental source: bone marrow
C;Comment: This protein belongs to the beta-chemokine family which is one of the major H
t1s and in tumor biology, and contribute to the trafficking and recuitment of the respon
C;Genetics:
A;Gene: mcp-2
C;Superfamily: macrophage inflammatory protein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-99/Product: monocyte chemotactic protein-2 #status predicted <MAT>

  Query Match             35.0%;  Score 145.5;  DB 2;  Length 99;
  Best Local Similarity   41.9%;  Pred. No. 2.8e-09;
  Matches   26;  Conservative   11;  Mismatches   24;  Indels    1;  Gaps    1;

Qy         13 PSECCFTYTTYKIPRQRIMDYYE-TNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKDM 71
              |  |||     ||| ||:  |   || || |  ::| |:||  || :| ::||:| :|  :
Db         31 PITCCFNVINRKIPIQRLESYTRITNIQCPKEAVIFKTQRGKEVCADPKERWVRDSMKHL 90

Qy         72 KE 73
              :
Db         91 DQ 92


RESULT 15
S07723
immediate-early serum-responsive protein JE precursor - rat
N;Alternate names: monocyte chemoattractant protein-1
C;Species: Rattus norvegicus (Norway rat)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S07723; JN0128
R;Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
Nucleic Acids Res. 18, 23-34, 1990
A;Title: Analysis of the rat JE gene promoter identifies an AP-1 binding site essential
A;Reference number: S07723; MUID:90174947; PMID:2106664
A;Accession: S07723
A;Molecule type: DNA
A;Residues: 1-148 <TIM>
A;Cross-references: UNIPROT:P14844; UNIPARC:UPI0000000187; EMBL:X17053; NID:g55530; PIDN
R;Yoshimura, T.; Takeya, M.; Takahashi, K.
Biochem. Biophys. Res. Commun. 174, 504-509, 1991
A;Title: Molecular cloning of rat monocyte chemoattractant protein-1 (MCP-1) and its exp
A;Reference number: JN0128; MUID:91128376; PMID:1704226
A;Accession: JN0128
A;Molecule type: mRNA
A;Residues: 1-148 <YOS>
A;Cross-references: UNIPARC:UPI0000000187; GB:M57441; NID:g205333; PIDN:AAA63496.1; PID:g
A;Experimental source: spleen cells
A;Note: the authors translated the codon GAA for residue 62 as Lys and GCT for residue 63
C;Genetics:
A;Introns: 26/1; 65/2
C;Superfamily: macrophage inflammatory protein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-148/Product: immediate-early serum-responsive protein JE #status predicted <MAT>

  Query Match             35.0%;  Score 145.5;  DB 1;  Length 148;
  Best Local Similarity   38.1%;  Pred. No. 4.2e-09;
  Matches   24;  Conservative   16;  Mismatches   22;  Indels    1;  Gaps    1;

Qy         13 PSECCFTYTTYKIPRQRIMDYYE-TNSQCSKPGIVFITKRGHSVCTNPSDKWVQDYIKDM 71
              |  ||:::|   ||  |: :|   |:|:| |  :||:||    :| :|: :||| ||: :
Db         31 PLTCCYSFTGKMIPMSRLENYKRITSSRCPKEAVVFVTKLKREICADPNKEWVQKYIRKL 90

Qy         72 KEN 74
                :|
Db         91 DQN 93


Search completed: January 10, 2006, 23:00:09
Job time : 39 secs
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